This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

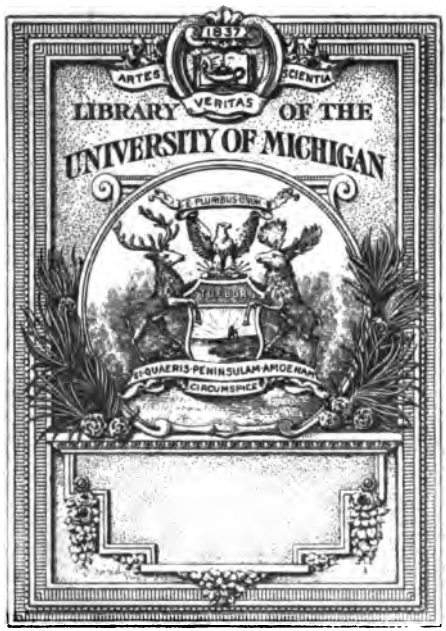
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`


1837
ARTES
SCIENTIA
VERITAS
LIBRARY OF THE
UNIVERSITY OF MICHIGAN
E PLURIBUS UNUM
SI QUAERIS PENINSULAM AMOENAM
CIRCUMSPICE

S
455
.P9

THE TRANSITION IN AGRICULTURE

Photo Rutter, Wisbech.

THE SPRING FLOWER HARVEST AT WISBECH.

THE TRANSITION IN AGRICULTURE

BY EDWIN A. PRATT

AUTHOR OF

'RAILWAYS AND THEIR RATES,' 'THE ORGANIZATION OF AGRICULTURE,'
'TRADE-UNIONISM AND BRITISH INDUSTRY,'
'AMERICAN RAILWAYS,' ETC.

LONDON
JOHN MURRAY, ALBEMARLE STREET, W.
1906

NOTE TO PRESENT EDITION

THE great interest aroused throughout the country on the subject of small holdings has led me to think that a cheap edition of the present work—in which much information will be found on such subjects as peasant proprietary, market-gardening, milk-supply, agricultural organization, transport and marketing questions, and other matters of direct concern to small holders and allotment holders—might be not unacceptable at the present moment. Circumstances have not permitted of my bringing up to date the numerous figures contained in the volume, but the general position and the arguments based thereon remain, I consider, the same as when the book was first published.

EDWIN A. PRATT.

September, 1909.

205598

CONTENTS

CHAPTER		PAGE
I.	INTRODUCTORY: AN ECONOMIC TRANSFORMATION	1
II.	COMMERCIAL ASPECTS OF MILK-SUPPLY	8
III.	ESSEX PAST AND PRESENT	25
IV.	THE FRUIT INDUSTRY	41
V.	A GLOUCESTERSHIRE FRUIT-FARM	62
VI.	FLOWERS	70
VII.	BULBS	79
VIII.	PRODUCTION UNDER GLASS	88
IX.	MARKET-GARDENING	98
X.	SPECIAL VEGETABLE CROPS	111
XI.	EVESHAM AND ITS STORY	133
XII.	THE TRADE IN EGGS AND POULTRY	151
XIII.	AGRICULTURAL ORGANIZATION	165
XIV.	BRANDSBY SHOWS THE WAY	178
XV.	CO-OPERATIVE FRUIT-GRADING	189
XVI.	MARKETING PROBLEMS	195
XVII.	TRANSPORT QUESTIONS	207
XVIII.	THE LAND QUESTION: PEASANT PROPRIETARY ABROAD	229
XIX.	PEASANT PROPRIETARY AT HOME	243
XX.	TENANCY AND A CONNECTING LINK	255
XXI.	THE AYLESTONE ALLOTMENTS	265

CHAPTER		PAGE
XXII.	SMALL HOLDINGS SYNDICATES	279
XXIII.	SMALL HOLDINGS BY 'PRIVATE ENTERPRISE'	293
XXIV.	THE HUMAN ELEMENT	302
XXV.	AN OBJECT-LESSON FROM SERVIA	313
XXVI.	POSSIBILITIES OF THE SITUATION	323

APPENDIX:

AYLESTONE CO-OPERATIVE ALLOTMENTS SOCIETY (TEXT OF AGREEMENT) - 341

ALLOTMENTS AND SMALL HOLDINGS CLUBS (RULES) - 343

SOUTH LINCOLNSHIRE SMALL HOLDINGS ASSOCIATION (AGREEMENT) - 346

REGISTERED *v.* NON-REGISTERED SOCIETIES - 349

INDEX - 351

PHOTOGRAPHS—PLAN OF MILK-LANDING AT EUSTON —PLAN ILLUSTRATING PEASANT PROPRIETARY IN HOLLAND.

LIST OF ILLUSTRATIONS

HALF-TONE ILLUSTRATIONS

THE SPRING FLOWER HARVEST AT WISBECH - *Frontispiece*

SPECIAL MILK-VAN, GREAT NORTHERN RAILWAY *To face p.* 16

STREET SCENE IN WISBECH: A CONSIGNMENT OF POTATOES *To face p.* 46

A BED OF ST. BRIGID ANEMONES AT ROBERTSON'S BULB FARM, RUSH, CO. DUBLIN - - *To face p.* 84

TULIP MACROSPILA AT RUSH, CO. DUBLIN - *To face p.* 86

UNLOADING THE WORTHING SPECIAL (FRUIT, FLOWERS, AND VEGETABLES) AT LONDON BRIDGE STATION, LONDON, BRIGHTON, AND SOUTH COAST RAILWAY *To face p.* 92

FRUIT-GROWING UNDER GLASS: A VINERY AT MR. G. BULLEN'S HANGLETON NURSERIES, GORING, SUSSEX *To face p.* 96

EGG-COLLECTING DEPÔT AT STOKE FERRY, NORFOLK, GREAT EASTERN RAILWAY - - *To face p.* 154

THE BRANDSBY ROAD MOTOR AND TRAILER, NORTH-EASTERN RAILWAY - - - *To face p.* 188

SPECIAL MILK-TRAIN AT MILK-LANDING, EUSTON STATION, LONDON AND NORTH-WESTERN RAILWAY *To face p.* 214

PLANS

PLAN OF THE SPECIAL MILK-LANDING AT EUSTON STATION *To face p.* 216

PLAN OF THE COMMUNE OF VLEDDER, DRENTHE (PEASANT PROPRIETARY IN HOLLAND) - - *To face p.* 350

THE
TRANSITION IN AGRICULTURE

NOTE.—The figures given in lines 15 and 16 of page 15 refer to the milk traffic carried by the North-Eastern Railway Company, from the Wensleydale district only. The total number of milk-cans carried by that Company over their entire system in 1904 was 360,000.

sprung up, with widespread possibilities of still further development under suitable conditions, and especially, I would say, under conditions which favour the smaller type of cultivator, and should, therefore, naturally tend to an increased land settlement.

The extreme gravity of the changes brought about in the first instance is undeniable. They were changes

that amounted to a revolution in our economic conditions. The opening up of vast expanses of virgin soils in the United States, Canada, Argentina, Australasia, and elsewhere, to the production of wheat on a scale to which there could be no possible approach in the United Kingdom; the quick transport of these and other foreign or colonial supplies by ocean steamers at rates which were so low that they became almost a negligible quantity; the invention of refrigerating processes which nullified climate, as steam had already annihilated distance, and opened up British markets to the almost limitless supplies of meat, butter, and other perishables from distant lands; the steady fall in the price of wool, owing to the magnitude of the flocks raised in our colonies;—these and other causes, apart from the advent of a succession of unfavourable seasons, were sufficient in themselves to disturb the very foundations of British agriculture, and to show that the old order of things in regard thereto was passing away.

But while these adverse conditions were being experienced in Great Britain, and while individuals who clung especially to the production of cereals were going from bad to worse, other sets of modifying changes were being developed which offered a certain degree of compensation, had full advantage at once been taken of them. The towns were, indeed, growing at the expense of the country, whence the rapidly-increasing industries and the various occupations of urban life drew their supplies of labour. Yet in proportion as the towns grew and manufactures developed, there was an increase in the demand for food-supplies other than simply the wheat and the meat, in regard to which the foreign and colonial competition was especially severe; while, with the greater wealth of the country there was brought about a greater purchasing power among

all classes of the community, and a consequent greater ability to gratify the increasing taste for articles of food, and other things besides, which had previously been regarded by the lower-middle and artisan classes, at least, as luxuries altogether beyond their means. Apart, also, from any question of increased earnings, the very fact of bread and meat being cheaper, by reason of the abundant foreign supplies, naturally allowed of more money being spent—even where the wages remained the same as before—on extensions of, and variations in, a hitherto more or less restricted dietary.

So it is (1) that the popular consumption in Great Britain during the last two or three decades of milk, cream, butter, vegetables, fruit, preserves, poultry, eggs, etc., as supplementary to bread and meat, has been greater than ever before in our history; (2) that there is a continued demand on the part of large sections of the community for the best qualities of English or Scotch meat, in spite of the large supplies of frozen or chilled with which other consumers are satisfied; and (3) that the breeding of high-class live stock of all types has undergone great expansion, partly in order to provide good dairy cattle and those best qualities of meat already mentioned, and partly as a separate commercial enterprise, to supply the requirements of countries which have looked to Great Britain as the land whence the best of breeding stock could be obtained.

Home producers who either recognised at once these newer wants and enlarged opportunities, and hastened to take advantage of them, or else were already engaged in what may be termed the 'lesser,' as distinct from the 'greater' agriculture, went through the period of distress with comparative immunity, and did well, or at least fairly well, at a time when large areas of land

devoted to cereals were being abandoned, and wheat-growers were declaring themselves ruined.

In some respects the foreigner was more ready to recognise these changes, and to avail himself of the wider opportunities so offered in our own markets, than the British producer was, while the foreigner had the greater reason for sending his increasing surplus to us, either because of the lack of a home population of sufficient dimensions to absorb his products, or because countries other than Great Britain set up against him the impediment of hostile tariffs. Want of enterprise or of adaptability among British agriculturists thus played into the hands of the foreigner; and it so played still more as shrewd English traders, who (1) were alive to the trend of events, (2) realized the conservative instincts of the British farmer, and (3) despaired of gathering in at home the large quantities which they knew our markets would take, themselves went abroad, established depots in various centres on the continent of Europe and elsewhere, collected supplies from the peasantry over a large area, sorted, graded, and consigned them to England in large quantities under the best conditions, and thus worked up a remunerative business, to the advantage both of themselves and of the consumer, while many a British agriculturist was still bewailing the unremunerative price of wheat.

All the same, the awakening came in our own country, and so well—especially of late years—have British agriculturists of the more progressive type responded to the aforesaid newer wants and enlarged opportunities that, concurrently with the continued decline in cereals, there has been a resort to alternative crops or industries to an extent that hitherto the British public have failed entirely to realize. The tradition of agricultural depression has been kept alive in the press by 'gentlemen

farmers,' who, with the decline of wheat-growing, found their occupation gone, and the 'working farmer,' who is taking their place, has not contradicted them. He is too busy a man to spend his time in writing letters to the newspapers!

Nor have official reports and statistics afforded much enlightenment on the particular matters here under review. Whether the difficulties of collecting the information were regarded as too great to be undertaken by a State department, or whether the matters in question were not thought of sufficient importance to warrant official notice, is more than I can say. But this fact I realized at the very outset of my own inquiry: that to ascertain what was going on in the directions indicated it would, in most cases, be necessary to visit personally almost every district which came into consideration at all, and seek for myself at first hand the information I wanted.

This course I have pursued, so far as time and opportunity allowed; but, in the circumstances, I wish the reader clearly to understand that in the pages which follow I make no attempt to give a complete survey of the present state of British agriculture in regard even to subsidiary crops and alternative industries. What, as an individual inquirer, I have had to be content to do is to gather in such facts and figures as would indicate sufficiently the changes that have been going on, and the magnitude of the developments that have already taken place, hoping thereby to promote a greater degree of public confidence in the continued vitality and the widened possibilities of British agriculture (using that word in its broadest sense), notwithstanding the period of depression of which the effects have certainly not yet entirely disappeared.

The restoration of such a feeling of confidence is of

the greater importance in view of the general attention now being attracted in Great Britain to questions concerning the land. If the country will only realize adequately what can be done, and what is being done, with land popularly supposed to have 'gone out of cultivation,' more or less, because 'corn crops do not pay,' there will be a still greater willingness to take practical interest in schemes for a closer land settlement. To my own mind it seemed that the securing of definite facts, showing what was actually going on along these particular lines, would be worth any possible amount of trouble that might be involved in collecting them. The restoration of wheat-growing to its former position in this country may or may not be possible; but assuming, for the sake of argument, that the latter be the case, then it becomes a matter of really national importance to see (1) what, under the continuance even of our present economic and fiscal conditions, can be done with the land instead; and (2) how far the new industries which are either taking the place of, or at least considerably supplementing, wheat production, are suitable for the small holders whom it is desired to establish in greater numbers on the soil.

Combined with these problems there are others.

Granted the capabilities of the land, as regards these alternative purposes, how are the producers to gain the best results from the enterprises they carry on? Under this head I propose to discuss various questions connected with the theory of combination, and I hope to adduce such evidence as will convince the reader that here again a stage of transition has been unmistakably entered upon, as shown by the increasing (though still far from complete) willingness to adopt the principles and practice of co-operation. In connection with the idea of combination as a means of securing

cheaper transport, I shall have something to say on the general question of the relations of the railways towards the agriculturists.

Finally, assuming that the land can still be used to advantage; that the alternatives to wheat-growing represent industries suitable for small holders; that combination will be of great practical assistance in securing economical production, cheaper transport, and more remunerative returns—assuming all this, there still remains that important matter of detail: On what principle can the small holders best occupy their land? Should it be ownership or tenancy? Should land-owner and small holder be left to their own resources, or should there be an intermediary? If so, who should that intermediary be?

The reader will perhaps conclude that I have here a pretty full catalogue of problems to deal with in the circumscribed limits of a single volume; but to my own mind they all have a more or less direct bearing the one upon the other, and must be regarded, in effect, as representing different phases of one great and all-important question.

With that expression of my own view of the matter I bring these opening remarks to a close, and address myself, without further delay, to my task.

CHAPTER II

COMMERCIAL ASPECTS OF MILK-SUPPLY

THE fact that so large an amount of arable land in the United Kingdom has been laid down to pasture during the last few decades is constantly adduced as one of the most striking proofs of agricultural depression. But those who bring forward this argument generally omit to mention that one effect of this increase of pasture land has been the development of a really stupendous business in the sale of fresh milk to the towns.

Down to about the year 1875 large centres of population in this country were supplied with milk either from farms situate on their immediate outskirts, or from cow-sheds in which the milch cows were housed within the limits of the city or town. Milk produced at farms any distance away was used mainly for the making of butter or cheese. Various causes combined to change these conditions. The towns swallowed up their rural suburbs; the urban populations greatly increased; the consumption of milk per head of the people developed in an even greater ratio than the increase in the population; the old conditions of milk-supply were no longer generally practicable; while the growing competition from foreign and colonial butter and cheese led to the seeking of wider outlets for the sale of that fresh milk

in the supply of which to the large towns the British farmer could have a monopoly.

The fact, I might here remark, that British dairy farmers have allowed the trade in butter to get so much into the hands of colonists and foreigners has often been held up as a reproach to them. But the reply they make is that, where their farms are within easy reach of a railway and of a large centre of population, it pays them better to sell the new milk than to turn it into butter, the latter course being expedient only when the farm is at too great a distance from a railway or a large town; or, alternatively, when there is an excess in supply over demand, butter-making then becoming (among other expedients) a convenient means of using up the surplus.

The general position, from the farmer's point of view, is well stated in the following paragraph, published in *The Dairy World* under the heading 'Butter-making or Milk-selling':

> The lament is periodically made in the daily papers that such a vast sum of money as £27,000,000 should be annually expended in the purchase of dairy produce from abroad, and Lord Londonderry has recently taken up the parable and expressed the opinion that farmers' wives and daughters should take the matter seriously into their consideration. The question, after all, resolves itself into one of price. When a dairy farmer can, by selling fresh milk, get from 1s. 4d. to 1s. 10d.—according to season—for the quantity that would be required to make a pound of butter, he is not likely, neither is his wife nor his daughter, to take into serious consideration the alternative of making butter to compete with produce which is quoted on the market at from 10d. to 1s. 1d. per pound. In some cases where a special market is obtained, and the facilities for sending milk to a large centre are not favourable, the making of butter of a high quality can be carried on to advantage; but the instances where such butter can command as high a price as 1s. 6d. per pound are very exceptional, and the possibilities of the extension of such trade so slight that no appreciable effect on the imported produce could result. The conditions in Ireland are, of course, different to those in Great Britain, but it is certain that to

the English dairy farmer with the high price of labour and higher rent, as compared with that in Ireland, the making of butter would mean the highroad to ruin.

Then, again, at a luncheon of the North Ribblesdale Agricultural Society one of the speakers admitted that 'something ought to be done' to compete more effectually with Denmark; but he found that 'no doubt there were many difficulties in the way. If,' he continued, 'you had a quart of cream, you could only make a pound of butter out of it. If you sold the quart of cream you got 1s. 6d. for it in Settle and 2s. 6d. in Bradford, but you only got 1s. 1d. for the pound of butter.'

Not only did the farmers find it to their interest to sell the fresh milk as such, but the greatly increased consumption, as the food-value of milk came to be more appreciated, and the better means provided for its distribution, by means of the railways, led to a great expansion of the milk industry, which has now, as I have said, become a very big enterprise indeed.

According to a report drawn up by a committee of the Royal Statistical Society appointed to inquire into the statistics available as a basis for an estimate of the production of meat and milk in the United Kingdom (presented in June, 1904), the total annual production of milk available for consumption, in one form or another, may be put at 1,723,000,000 gallons, distributed as follows: Consumed as milk, 620,000,000 gallons; used in the making of butter, 944,000,000 gallons; ditto, cheese, 153,000,000 gallons; ditto, condensed milk, etc., 6,000,000 gallons. The annual production of butter in the United Kingdom is estimated by the same authority at 160,550 tons, and that of cheese at 68,300 tons. From these figures it would appear that, notwithstanding the large sale of new milk, and not-

withstanding also the prodigious importations of foreign and colonial butter, more milk is still used here for the production of English butter than is sold for direct consumption.

How the business in the distribution and sale of new milk has increased of late years is well shown by the experiences of different railway companies in relation thereto. The following table, respecting the traffic on the Great Western Railway, which carries more milk than any other line in the country, is especially interesting:

MILK TRAFFIC FORWARDED FROM GREAT WESTERN STATIONS.

Year.	Total Number of Cans carried.	Proportion received in London.
1892	1,049,511	757,793
1893	1,053,359	719,045
1894	1,057,967	731,301
1895	1,228,356	822,205
1896	1,346,569	876,782
1897	1,442,502	932,682
1898	1,524,125	975,784
1899	1,642,380	1,024,363
1900	1,678,078	1,036,327
1901	1,746,903	1,057,188
1902	1,915,456	1,089,156
1903	2,065,039	1,137,769
1904	2,141,778	1,206,616

Allowing (for the Western counties) an average of 14½ gallons to each can, one finds that the total quantity of milk carried on the Great Western system in 1904 was over 31,000,000 gallons, of which nearly 17,500,000 gallons were brought to London. The proportion of

the supply for the Metropolis carried by the Great Western comes mostly from stations on the main line between Reading and Chippenham, and from the Berks, Hants, and Winchester districts. Over 10,000 cans were received in London during 1904 from the following stations: Challow, Shrivenham, Chippenham, Cranmore, Malmesbury, Sparkford, Stratton, Devizes, Wantage, Calne, Mells Road, Swindon, Witham, Westbury, Patney and Chirton, Uffington, Castle Cary, Hallatrow, Little Somerford, Wootton Bassett, Trowbridge, Pewsey, Brinkworth, Hannington, Highworth, Yetminster, and Shepton Mallet.

The longest distance for which milk is regularly carried to London on the Great Western system is about 130 miles, but the greater part would be brought a distance of about 80 miles. The milk is collected by local trains from the stations on branch lines, and converges towards Swindon. It is there put into express trains, which do the journey thence to London (77 miles) in less than two hours. There are also special milk trains, running at high speeds, which call at the principal milk-sending stations on the way to London. In the cooler months of the year milk is sent longer distances than in the summer. During 1904, for example, 700 cans were conveyed from St. Erth (Cornwall) to Paddington, a distance of 320 miles.

In addition to the milk conveyed by the Great Western Railway, large quantities are also brought to London from the Western counties by the London and South-Western Railway Company, who likewise run special express milk trains in order to facilitate their very substantial traffic.

The following table shows at a glance the number of cans and gallons of milk forwarded from 450 of

the principal stations on the London and North-Western Railway during the years 1904 and 1892 respectively:

Year.	Cans.	Imperial Gallons.
1904	1,499,712	22,495,680
1892	1,054,802	15,822,030
Increase ...	444,910 = 42 per cent.	6,673,650 = 42 per cent.

The general average distance the milk is conveyed on the London and North-Western may be taken at something like 80 miles; but occasionally it comes from places one or two hundred miles away. In the autumn of 1905 the company were carrying to London two or three cans daily from Goold's Cross, on the Great Southern and Western Railway of Ireland, a distance of 430 miles. The explanation is that, the general scale of charge being the same for all distances over 150 miles—viz., 1½d. per gallon—distance, given a sufficiently quick delivery, is no obstacle to receivers getting their milk from any part of the United Kingdom they please. Where there is a regular supply going forward even lower rates for over 150 miles than 1½d. per gallon are charged in some cases.*

The special milk trains provided on the London and

* The question as to whether or not the milk traffic is really profitable to the railway companies will be dealt with in a subsequent chapter on 'Transport Questions.'

North-Western Railway, and running into Euston, Liverpool, or Manchester, are as follows:

7.40 p.m. ...	... Crewe to Euston.
10.30 „ ...	... Burton to Euston.
9.18 a.m. ...	... Bletchley to Euston.
7.10 p.m. ...	... Bletchley to Euston.
10.45 a.m. ...	... Willesden to Euston.
8.0 „ ...	... Longcliffe to Manchester.
7.26 „ ...	... Stockport to Longsight.
9.32 „ ...	... Chester to Liverpool.

The times are slightly modified, and the number of trains is augmented, on Sundays where the ordinary passenger services are insufficient for the requirements of the traffic. In addition to the milk going by the 'specials,' a very considerable quantity is carried by the ordinary passenger trains every day of the week.

At Euston Station there are two commodious platforms (with a roadway in between direct from the street) which are specially allocated to the milk traffic, and here as many as 1,500 cans of milk have been received in a single day.

On the Great Eastern Railway the milk traffic from country stations to London and suburban stations in 1904, as compared with 1894, was approximately as under:

Year.	Number of Cans.	Number of Gallons.
1904	520,000	7,280,000
1894	392,000	4,700,000
Increase ...	128,000	2,580,000

About 30 per cent. of the traffic is sent to Liverpool

Street, the remainder being distributed amongst some fifty Great Eastern suburban stations in the North, North-East, and East of London—viz., Tottenham, Hackney, Bow, West Ham, East Ham, Ilford, etc. Formerly the bulk of the traffic was received at Liverpool Street; but owing to the great expansion of the suburban districts during the past few years, the milk is now required more in the suburbs than in the City, and goes there direct. During the summer season a considerable quantity of milk is also conveyed to seaside resorts such as Cromer, Yarmouth, Southend-on-Sea, etc., both from Great Eastern stations and over the Great Eastern system from stations in Derbyshire, Staffordshire, and elsewhere.

The North-Eastern Railway Company carried 29,000 cans of milk in 1904, as compared with only 9,000 four years previously. This considerable increase in so short a time has encouraged the company to make a special effort with a view both to securing still further expansion and to placing the local milk-supply on a better footing. To this end they erected alongside their lines at Northallerton a commodious and well-arranged depôt, to serve as a collecting and distributing centre for a newly-formed body known as the Wensleydale Pure Milk Society, which leases the depôt from the railway company. The society (of which the Deputy General Manager of the North-Eastern Railway Company, Mr. Philip Burtt, is an active member) buys milk from Wensleydale farmers, who, in return for a close adherence to certain strict sanitary and other regulations and conditions, are paid a higher price for their milk than they have hitherto received. The milk is taken to the Northallerton depôt, where it is tested, filtered, cooled, and run off into bottles. These are then sealed, put into boxes for transit by rail, and

placed in a refrigerating chamber pending consignment. It is in these bottles that the milk reaches the consumer.

When operations were started, in October, 1905, it was understood that the entire supply then available, about 500 gallons a day, would go to Newcastle-on-Tyne, where it would be distributed by the Newcastle Co-operative Society, already a large retailer of milk. Notwithstanding the increased price paid to the farmers, and also the higher railway rates on account of the bottles, the charge to the consumer for the bottled milk would be the same as the unbottled, the Newcastle Co-operative Society being satisfied with a smaller profit. Should the scheme answer it will be extended to other towns as well.

The milk brought to London by the Great Northern Railway Company comes mainly from North Staffordshire, though substantial quantities are also carried from Nottingham, Leicester, Derbyshire, Hatfield, and Huntingdon. Egginton Junction, near Burton, and 154 miles from London, is a collecting centre for the North Staffordshire traffic. From this point a special milk train leaves at 9.30 at night, and runs through to London (but for two stops *en route* for locomotive purposes), reaching Finsbury Park at 1.30 a.m., and King's Cross at 2.30 a.m. Special milk sidings and special staffs to attend to the traffic are provided at each station. During the months of July, August, and September, 1905, 36,000 churns were received at King's Cross, and 57,000 at Finsbury Park, a total of 93,000 for the quarter. These were estimated to represent 1,488,000 gallons of milk.

Facing this page is a photograph giving the type of special milk-van now employed on the Great Northern Railway.

SPECIAL MILK-VAN, GREAT NORTHERN RAILWAY.

In regard to the milk traffic on the Midland system during the course of a year, I have been favoured with the following approximate statement:

Destination Station.	Number of Milk-cans carried.	Number of Imperial Gallons of Milk.
London	418,000	5,618,000
Birmingham	193,000	2,711,000
Manchester	96,000	1,236,000
Nottingham	50,000	658,000
Sheffield	53,000	702,000
Leeds	65,000	816,000
Bradford	41,000	478,000
Other stations ...	283,000	2,913,000
Totals	1,199,000	15,132,000

The figures I have given are quite sufficient in themselves to demonstrate the large proportions which the business in fresh milk has assumed, and I may therefore now proceed to say that if, hitherto, the dairy farmers of the country have not derived so large a profit from that business as they would like, and as they ought, to have, the reason has been due mainly to the lack of such combination on their part as would enable them to control the market, instead of being themselves, in effect, controlled by middlemen. There may be difficulties in the way of farmers living 100 miles or so away from a large town attempting to sell their own milk direct to the actual consumer, though co-operative retail shops have been opened by dairy farmers in one or two provincial centres with a fair prospect of success. But when, on the other hand, the individual farmer in the country sells to a London wholesale dealer, who sells to a retail dealer, who sells to the householder,

there are, clearly enough, intermediate profits being made which, unless unduly high prices are to be paid by the consumer, may well keep down the amount received by the producer, especially if he should have no organization at his back to see that justice is done to him. Some years ago, when the farmers in the West of England complained of the small returns they were getting on their milk, the Great Western Railway Company, with the idea of helping them, granted a reduction in the rates for the carriage of milk. But the farmers got none of the benefit, as the wholesale dealers at once reduced their allowance to the farmers by a proportionate amount.

Obviously the real remedy lies in the direction of combined effort among the milk-producers themselves; and what combination can do is well shown in the case of the Staffordshire Farmers' Association, which was formed, in 1897, with the following object in view:

> The object of the association is to secure for its members by co-operation the most favourable condition for carrying on the business of farming with financial success. This object may be attained in the following manner:
>
> 1. By discussion and agreement upon the fair market price that ought to be obtained for farm produce.
>
> 2. By giving information and assistance to members to help them to make satisfactory contracts, and by supplying printed forms for contracts, with a view of securing uniformity and fair dealing.
>
> 3. By assisting members at any time in obtaining information as to the stability of traders, and, in certain test cases, taking legal advice, as the executive committee may decide.
>
> 4. By obtaining the best terms possible from the railway companies for the carriage of all farm produce, and also by obtaining all other railway facilities that may be required.
>
> 5. By using all efforts to prevent adulteration of dairy produce, feeding-stuffs, and manures.
>
> 6. By co-operation, amalgamation, or affiliation with any other kindred associations.
>
> 7. By making arrangements for bringing the producer into contact with the retail dealers and consumers.

8. By purchasing for members, on favourable terms, feeding-stuffs, manures, implements, and other farm requisites, as may be required.

9. And generally by promoting the interests of farmers in every way that may from time to time be considered desirable.*

The association has now 1,200 members, who dispose of 12,500,000 gallons of milk per annum. Their net return on this quantity, after allowing for railway carriage, is £369,000; and it is calculated that the financial gain they have secured through combination is from £30,000 to £40,000 per annum, or an average annual gain per member of from £30 to £40.

One may judge from these figures what the milk industry is worth to the British farmer, and one sees also how its conditions may be further improved. But the particular circumstances under which the Staffordshire combination was brought about should also be told.

The chief market for Staffordshire milk is London, and, prior to 1897, the farmers of that county sent their supplies to wholesale dealers in the Metropolis. The farmers in Derbyshire did the same, and the London wholesale dealers got into the way of setting the producers in the one county against those in the other, in order to reduce the returns made to each, and secure larger profits for themselves. Meanwhile (as I shall show subsequently, in a chapter on 'Essex Past and Present') the dairy farmers of the Eastern counties had formed an association having for one of its objects the creation

* A further statement issued by the association, showing the advantages of membership, says, among other things: 'You will by joining the association encourage combination, without which it is nowadays impossible for any business to be carried on to the best pecuniary advantage. There are very many questions connected with agriculture which cannot be properly dealt with except by united action.'

of an agency in London for the sale of milk to retailers, so as to dispense with the intermediate wholesale dealer. The Staffordshire farmers began to think it would be better for them if they adopted a similar policy, and they approached the Derbyshire farmers to see if they would join in an agency scheme to embrace the two counties. Derbyshire approved the idea. But there were financial difficulties to be solved. It was especially thought the London agency should not be started without a definite guarantee of the necessary capital for three years. By the end of that time, in the opinion of Mr. Edwin Smithells, secretary of the then newly-formed Staffordshire Farmers' Association, the agency would be self-supporting.

The matter was laid before the leading Staffordshire land-owners, who were assured that if the proposed scheme were carried out, the position of the farmers would be substantially improved. The landlords responded by giving generous subscriptions or donations to meet the initial expenses, and by guaranteeing any further sums that might be wanted for a period of three years. Not only, indeed, have the landlords done this, but they have helped to form the executive committees of the Staffordshire and Derbyshire Associations, and have taken an active and thoroughly sympathetic part in the working details. The Earl of Lichfield, President of the Staffordshire Farmers' Association, attends all the meetings of the executive committee of that body.

Once started, the London agency speedily attained a success which has been described to me as 'phenomenal.' The agent does not himself sell the milk. He finds customers, whom he introduces to the members. If terms can be agreed to between them a form of contract is drawn up through the intermediary of

the society; but the society itself accepts no pecuniary responsibility. It is the business of the agent to know something about the customers he recommends, and to guard the farmers, as far as he can, from being victimized by unscrupulous or untrustworthy persons; but he gives no absolute guarantee, and any bad debts that are made still fall upon the farmer. Nor is the farmer under any obligation to sell through the agent, if he finds he can do better elsewhere. But, in point of fact, the sales through the joint agency in London have amounted to as much as £70,000 in one year, and the bad debts on the business done have not exceeded £30 or £40.

The expectation that the London agency would become self-supporting within three years was duly realized. The London agent receives salary and commission, and, after these have been paid, the society (which is a non-registered body, supported by voluntary subscriptions only) had funds enough left to warrant the starting of other agencies elsewhere. Attempts were, therefore, made in this direction at Birmingham and Manchester, combination in the latter city being effected with the Cheshire Milk-Producers' Association, which had been formed in 1898 as a further direct outcome of the example set by the farmers in the Eastern counties.

But the conditions in Birmingham and Manchester are different from those in London. Whereas in the Metropolis there are middlemen who do an exclusively wholesale trade in milk, in Birmingham and Manchester the wholesale dealers carry on a retail trade as well, so that there the agency scheme presents greater difficulties. It is now proposed, therefore, to go a step further and open depôts in the two cities in question, supplementing them with horses and carts for the supply

of milk to small retailers who cannot go for it to the railway-stations.

The result of these further developments will, doubtless, be awaited with interest by dairy farmers throughout the country; but in the meantime fresh difficulties have arisen in another direction. The better terms which combined effort has enabled the producers to get for their milk are leading to a substantial increase in the supplies put on the market, more especially because many individuals who hitherto devoted their energies to cheese-making are now disposing of the fresh milk instead. For a succession of years the association has maintained steady prices; but it can do so no longer in the face of over-production, and the problem of the moment, as these lines are being written, is the profitable disposal of the surplus, so that it may no longer come upon the fresh-milk market. Next, it seems, to selling 'raw' milk, the best thing to do is to turn it into condensed milk; the selling of cream comes next, and the making of cheese next, while the conversion into butter is regarded as the least remunerative of all. What is proposed in Staffordshire is that a factory should be set up at Uttoxeter, where the milk produced in excess of actual fresh-milk requirements could be dealt with by one or other of these different processes of manufacture.

The Cheshire milk-producers, to whose Association I have already alluded, send only a comparatively small quantity of their total output to London; but they find, on the other hand, important markets in Manchester (which city alone is said to take 30,000 gallons of milk a day), Liverpool, Warrington, Stockport, St. Helens, Oldham, Birkenhead, New Brighton and other towns on the south side of the Mersey, the Potteries, Walsall, Birmingham, and Wolverhampton. The Cheshire Asso-

ciation not only operates throughout that county, but embraces the whole of the districts of Derbyshire, Shropshire, and North Wales covered by the Chester and Whitchurch Dairy Farmers' Associations, and the East Cheshire and North Derbyshire Farmers' Association. Founded on lines analogous, generally speaking, to those of the Staffordshire Farmers' Association, it has, like that body, raised the whole tone of the dairy industry in the district in which it operates, and placed it on a greatly improved basis for those directly concerned. Not only has the Cheshire Association joined with those of Staffordshire and Derbyshire in establishing the joint agency in Manchester, and not only has it secured better and steadier prices generally, but it has also, among other things, opened an inquiry office, which enables the members to obtain information as to the stability or honesty of milk-buyers; it helps in the collection of what might otherwise become bad debts; it has been able to secure from the railway companies in a number of instances improved arrangements for the transit of milk, which are spoken of in the annual report for 1905 as having been of great value to the members in the district concerned, though a strong desire is still expressed for modification of 'owner's risk' conditions; it has taken successful action in regard to compensation for cows slaughtered on account of being affected with tuberculosis of the udder; and it has undertaken the defence of members charged with adulteration of milk when, after inquiry, it has found that no fraud has been committed or intended. The membership at the end of 1904 was 1,266.

There are various other combinations of dairy farmers in the country to which reference could be made; but the examples given, coupled with what I

have still to say in the next chapter concerning the Eastern counties, will suffice to show that the great and important industry which the production and the sale of fresh milk have become (as the figures given at the outset clearly prove) is now being placed on a much more solid basis than it had ever occupied before.

CHAPTER III

ESSEX PAST AND PRESENT

LONG before the era when wheat production was at its best in Great Britain, Essex was a famous dairy country, its nearness to so great a centre of consumption as London giving to the local farmers an exceptionally good market for their produce, and especially for their supplies of new milk. But when Wheat became King, he had no more loyal and devoted adherents than those who followed his standard in Essex, and cereals took the leading place previously occupied by dairy products. Land yielding good crops fetched high rents so long as the crops in question yielded good prices.

Not only were times prosperous for the landlords, but wealth poured in upon the farmers, who could live a life of ease and comfort, with a few bottles of wine at their elbow when they sat down to dinner, two or three good hunters in their stables to take them to the 'meet,' bailiffs to look after the labourers who toiled at a barely living wage to provide them with the luxuries they enjoyed, and dealers to relieve them of all trouble in the buying and selling of stock. It was a Golden Age to which a few impoverished survivors now look back as the 'good old days'—a time they may recall from the recesses of their memory, but one that, for them at least, is only a reminiscence and a dream.

For Essex felt more severely, perhaps, than any other part of the country the depression that set in when the price of wheat fell to 45s. the quarter, as it did in 1875. The depression became still more acute with the further decline to 43s. 10d. in 1879, and the throwing up of farms—especially with the advent of bad seasons, as well—was resorted to on every hand. As one ruined farmer after another abandoned the struggle, more and more land went out of cultivation, or, left on the hands of the owner, was cultivated by him as best he could for a few years longer, in the hope that someone would come along and take on the farms at the almost nominal rent to which most of them sank. In some instances land which had been previously let at from 25s. to 40s. per acre could be had for 1s. or 2s. the acre, and in others the landlords were willing to leave the question of rent in abeyance for a year or two, if only new tenants would take the farms over and keep them in fair condition.

When things were absolutely at their worst they began to get better. Far away from Essex, in the dairy districts of Ayrshire, and especially in the neighbourhood of Kilmarnock, lived a sturdy race of farmers, who also had troubles of their own to bear. They were unspoiled by prosperity; they were thrifty and hard-working, and they had great force of character; but there was this drawback to their position: there were too many occupants of the Ayrshire hive, and the time had come for a swarming off of some of them in another direction. Such was the demand for dairy farms in Ayrshire that the rents had increased to a point which left the tenants with little or no margin for profit from arduous labour, especially when the labour itself was devoted to the production of butter and cheese.

It was at this time that some of the canny Scots already settled in the South sent word to their friends in Ayrshire that there was land in Essex which could be had for the asking; and it was thought that, with such a market as London near at hand for the sale of milk, there ought to be the chance for a Scottish dairy farmer to get a living off the said land, even if an English wheat-grower could not. So a few adventurous spirits went as an advance-guard to look into the situation for themselves, and the reports they made to their friends at home were so favourable that more and still more followed. Before long there was a regular migration from Ayrshire to Essex, until the county began to be almost overrun with Scotsmen. Special trains were provided by the railway companies, in which the flitting Scots took, not only their families and their household effects, but all their cattle—some of them had 50 or 100 cows each—their implements, and their helpers. In this way they thought they could settle down right off in that Land of Promise which the Englishmen were deserting as though it were only a Slough of Despond. They turned out no English farmers, however, for they took only such land as had been abandoned or was being feebly cultivated by the landlords themselves. They had no difficulty in making satisfactory terms in regard to rent, and the way they set to work would have assured success under the most unfavourable of circumstances.

The task, however, they had before them was no easy one, willing enough as they were to adopt changes of method. Such are the conditions of soil and climate in Essex that the Scottish immigrants found they could depend on good pasture for only about two months in the year, and it was necessary they should grow or otherwise provide supplies for the cattle for the

remainder of the year. Here, therefore, they were at a disadvantage as compared with the dairy farmers of Cheshire, Staffordshire, or Derbyshire. Then the land itself had been 'starved' by the previous tenants, who, when times of depression came upon them, sacrificed their bullocks, their cows, their sheep, and their horses, and clung on to wheat-growing, so that not only did they abandon that which might have paid, for the sake of that which did not pay, but they deprived the land of all home-made manure. Early in the days of the new movement, however, and at a time when the virtues of artificial manures were not so widely known as is the case now, one of the shrewdest of the Scottish settlers resorted to the use of basic slag, and this he did with results that were regarded with astonishment. His landlord had, for instance, 'thrown in' a piece of derelict land that seemed to have been so exhausted as not to be worth any rent at all. A judicious application of basic slag brought it into good condition again, and a succession of excellent crops followed.

True it is that in respect to their general farming the Scottish settlers had various things to learn. Certain methods which suited Ayrshire did not suit Essex, and it was especially found that some of the agricultural implements which had helped to fill up the aforesaid special trains had better have been left behind in Scotland. But in this period of transition, when the settlers were adapting Scottish farming principles to Essex local requirements, they always had their dairy business to fall back on, and it was to this they looked as the main source of their revenue.

Here, however, fresh difficulties arose. The dairy farmer was found to be in a hopeless position, especially in his dealings with London middlemen, so long as he re-

mained an individual unit. Hence, early in the nineties there was formed an Eastern Counties Dairy Farmers' Society, the larger proportion of whose members consisted of Scotsmen; though by this time the influx of Scots into Essex had been followed by the immigration of a goodly number of English dairy farmers as well. The main object of the society was 'to watch over, protect, and further the interests of the dairy industry and farming generally in the Eastern counties,' other matters which were to come within the scope of operations being—'meetings to discuss points in dairy management; the framing of equitable Michaelmas contracts; a standard analysis and measure for milk; the raising of the price of milk; the legal defence and protection of its members; the promotion of dairy factories where desirable; the improvement in the breeds of dairy cattle; the mutual insurance of cows; the purchase of feeding stuffs and manures in quantities and by analysis.'

Of these various purposes, the one of greatest immediate importance was the securing of a better price for the milk. Those particular disadvantages in regard to soil and climate to which I have already alluded make it especially necessary that, on account of the greater cost of production, Essex farmers should obtain a good price for their milk—if not a higher price than that paid to the dairy farmers of the Midlands or the Western counties. But the Scottish settlers found that, although they were indeed near to a great market for new milk, that market was practically controlled by some half-dozen wholesale men, who bought from the farmers, and sold again to the retail distributors who supplied the public. There were thus two middlemen between the producer and the consumer, and the former had practically to take such

terms as the wholesale man thought fit to offer him. Not only was there a big difference—in favour of the middleman—between the price at which the farmer sold and that at which the consumer eventually bought, but, after having been in operation some years, the society discovered—what it had not known before—that when the wholesale dealers bought from the farmers the 'barn gallon' consisted of 17 pints, though when they resold to the milk distributors they reduced the 'barn gallon' to 16 pints—a supplementary benefit to themselves of 1 pint on each 'barn gallon' handled.

So there was further organized, in 1896, an Eastern Counties Dairy Farmers' Co-operative Society, Ltd., with a view to arranging for the sale of members' produce, not direct to the householder, but certainly direct to the retail distributor, in order that one middleman at least—the wholesale dealer—should be eliminated. At first the society adopted the commission system; but this it afterwards abandoned in favour of purchasing outright from the farmers, under contracts which required them to forward specified quantities of milk, either direct to the society's own customers or to the headquarters in Water Lane, Stratford, E. Here there is a well-arranged establishment, on which about £800 has been spent, the appliances provided including a complete refrigerating and pasteurizing plant. The society draws supplies from fifty-two farms, and the quantity of milk dealt with in the six months ending June 30, 1905, was 369,698 gallons. The average prices paid per gallon to the farmers are 7½d. in the summer and 9½d. in the winter.

From these headquarters at Stratford the manager makes contracts with retail distributors throughout the East End of London. One of these distributors is the Stratford Co-operative and Industrial Society, Ltd.,

which takes from 900 to 1,400 gallons of new milk per day from the Eastern Counties Society. Should any farmer fail to supply the quantity he has agreed to forward, the manager is authorized to buy elsewhere, and charge any difference in price to the account of the defaulting member. An increasing trade is also being done in eggs, poultry, butter, etc., the sales in this branch being £840 in 1904, against £300 in 1903.

The society's total sales during 1904 amounted to £27,081, as against £19,952 in 1903, and £15,237 in 1902. This business was done on a paid-up capital of only £750. Not only had the members obtained substantially better prices for the milk sold to the society, as compared with what they would have got from the wholesale dealers, if left to their own resources, but the operations of their society for the year 1904 showed a net profit of £524, making, with a balance of £90 brought forward from the previous year, an available balance of £614. Out of this it was proposed to pay a dividend of 5 per cent. on the paid-up share capital; 1 per cent. on members' sales under contract to the society; ¼ per cent. on non-members' sales under contract to the society; and ¼ per cent. on purchases from the society; £100 being put to general reserve, and £319 carried forward to the following year.

An exceptionally difficult branch of combined effort —that of co-operative sale—thus seems to have been very successfully managed, though the combination is still incomplete in the Eastern counties, as compared with the policy followed by similar bodies in Holland, since the members are not bound (as in Holland) to send the whole of their available supplies to the co-operative society, but keep their private customers, with whom they make independent bargains as well. As regards co-operative purchase, the total quantity of

artificial manures supplied to members of the parent body, the Eastern Counties Dairy Farmers' Society, during 1904, was 1,132 tons.

While all this progress was in the making, the position alike of settlers and of survivors in Essex was being improved in another direction. In 1892 the Essex Education Committee, with funds placed at their disposal under the Local Taxation (Customs and Excise) Act of 1890, purchased the site of an old grammar school at Chelmsford, and converted the buildings (since considerably enlarged) into the County Technical Laboratories, as they are now known, for teaching biology and chemistry, the two sciences which are of the greatest importance to the principal industries of the county—namely, agriculture, horticulture, and dairying.* From this point of view the arrangements include a chemical laboratory, with balance-room, store-room, etc.; two large biological laboratories, and a model dairy in the basement; while the educational courses given comprise a Winter School of Agriculture (at which there are short courses in the science and practice of agriculture, including both crops and stock, attended mainly by farmers' sons); a County School of Horticulture (conducted partly at the laboratories and partly at the school gardens of 31 acres); day classes for practical instruction in chemistry, biology, and dairy bacteriology; evening classes in chemistry and botany; classes for the training of teachers in Nature science and experimental science; and instruction in the science and practice of cheese-making and poultry-keeping (given in the dairy school).

But the institution is much more than a technical school for farmers' sons and dairymaids. It has the

* I shall refer in later chapters to the substantial developments brought about in Essex in market-gardening, etc.

further aim of being 'a centre at which farmers and others can readily obtain scientific and practical information respecting farming and allied industries.' The principal room in the buildings, in fact, is the Agricultural Room, on the ground-floor, which serves not only as a classroom for agricultural students and as an agricultural museum and reference library, but also as a place where meetings of farmers can be held from time to time on market-days to discuss agricultural problems. During the winter of 1904-1905 the following series of 'market-day lectures' was given on Friday afternoons at the laboratories:

Opening Address: Major Craigie, C.B., of the Board of Agriculture.

'The Manuring of Market-Garden Crops': Bernard Dyer, D.Sc., F.I.C.

'The Marketing of Farm Produce': J. Wesley-Martin.

'Agricultural Co-operation in Suffolk': the Rev. R. Abbay, President of the Framlingham and District Agricultural Co-operative Society.

'Some Hints on the Management of a Flock': T. Goodchild, C.C., Chairman of the Agricultural Sub-Committee.

'The Improvement of Pastures': Professor T. H. Middleton, Cambridge University Department of Agriculture.

'How New Breeds of Agricultural Plants are produced': W. G. Rattray, of Messrs. Gartons, Limited, of Warrington and Newton-le-Willows.

'Seeds: their Supply, Purity, Germination, and Growth': Wm. Hasler.

'The Prevention of Injury by Wireworm': W. J. Moss.

'Poultry-Keeping on Farms': Miss Annie Matthews, of the County Dairy School.

Short Lectures by Practical Men on Different Varieties of Soils:

1. 'Bagshot Sand Soils': W. W. Bull, Ramsden.
2. 'Roothing Clay Soils': Geoffrey Matthews, Good Easter.
3. 'London Clay Soils': Primrose McConnell, B.Sc., Ongar.

'The Cultivation of Maize': C. B. Russell, C.A.

'Varieties of Mangolds, with a Comparison of the Feeding Value': Professor T. H. Middleton, Cambridge University Department of Agriculture.

'Taints in Milk: how caused and how avoided': F. J. Chittenden, County Technical Laboratories.

'The Organization of Agricultural Opinion, with Special Reference to Essex': A. H. H. Matthews, Secretary of the Central Chamber of Agriculture.

On Fridays, also, the leading members of the staff hold regular levées of farmers, who come to them for advice on some scientific or other problem connected with farming. Then, an important work is done in the way of field experiments. These have, mainly, the double object of illustrating the principles of manuring, and of investigating the manures best adapted for permanent pasture and tillage crops on Essex soils. Others relate to the best means of laying down land to grass; the improvement of grass land for feeding; the best varieties of cereal crops for cultivation; the elimination of field weeds; fungoid diseases of crops, etc. There are thirty different centres throughout Essex at which the experiments are carried on. The Education Committee supply seed and manure, a local farmer provides land and labour, and, when the crop is sufficiently advanced, the agricultural instructor goes to the spot and holds a 'field meeting,' which is generally attended by from twenty to fifty farmers of the neighbourhood. Reports on the results of the experiments are published periodically, and circulated through the county.

These branches of the work are followed with keen interest by the older farmers, who could certainly never be got to attend the classes of a technical school; but there is still another branch which they appreciate, perhaps even more, and that is the making of agricultural analyses. These are undertaken, at very low fees, 'for *bonâ-fide* agricultural purposes only.' They relate to soils, manures, feeding-stuffs, milk, and water, and the information given in relation to them is of an essentially practical kind, likely to be of direct advantage

to the farmer. The general results are collected into series of 'Notes on Agricultural Analysis,' which are published from time to time, and draw attention to the more important of the facts the analyses in question have brought out. As many as 350 samples, sent in by different farmers, were dealt with during the twelve months ending June, 1905, and experience shows that no better means could be adopted for spreading information of an essentially useful kind among working farmers, and for enabling them both to effect reasonable economies and to get good value for their money. In one instance a farmer sent in for analysis some mixed dairy cake, for which he had paid £8 15s. per ton. The analyst found that, from the point of view of feeding-value, a fair price would have been £6 7s. In another instance mixed cake, which had cost £7 10s. per ton, was found to be worth only £4 10s—that, at least, being the amount per ton for which the farmer could have bought the ingredients and mixed them for himself. 'As long as these high prices rule,' say the analysts in their 'Notes' for 1901-1903, 'farmers will be well advised to purchase pure linseed and cotton cakes and pure feeding meals and make their own mixtures.' One Essex farmer whom I met, himself a strong believer both in analysis and in co-operation, told me that, even under these two conditions, his bills for feeding-stuffs came to £1,600 a year. It is obvious that, even on a much lower figure than this, the purchase of feeding-stuffs at a price substantially in excess of their food-value might in itself make all the difference between profit and loss on the year's transactions.

In the case of artificial manures, again, certain of the Essex farmers found, when they received their analyses from the laboratories, that they had been paying at the rate of £3 or £4 a ton for certain qualities which had

no agricultural value at all; while, with the help of the Eastern Counties Dairy Farmers' Society, they bought at £2 4s. 6d. per ton fertilizers for which, as individual units, they had paid at the rate of £3 4s. 6d. per ton, thus saving £1 per ton straight off, in addition to having a guarantee of good quality.

There are other details in connection with the work of agricultural education at Chelmsford which might be mentioned, and it is especially interesting to learn that deputations of Essex farmers have made tours of inquiry in Holland, Denmark, and Hungary. But the facts already given will suffice to show the twofold nature of the general scheme. On the one hand, the rising generation of Essex farmers—men of twenty-five or twenty-eight years of age—in whom the greatest hope of a complete agricultural revival is placed, are being taught to farm on more scientific principles than those followed by their fathers and grandfathers before them, and the willingness on their part, at least, both to learn and to adopt new methods is beyond any possibility of doubt. On the other hand, the farmers of maturer years, who are too old to go back to school, and are apt to regard new methods with instinctive prejudice, get intensely interested in the field experiments; they appreciate the value of analyses which show them how to save money and how to produce better results; and, finally, they make a complete surrender to the 'new-fangled' notions of scientific farming when land in their neighbourhood, which for years had lain derelict, not producing 'enough grass to feed a rabbit,' is transformed, under scientific treatment, into fine pasture land, and the feeding-value of herbage elsewhere is doubled by the same means.

Here, then, in this sequence of events, we seem to have all the essential details for a social and economic

revolution in the once distressful county of Essex. But that revolution is not yet complete, nor is it likely to be until the rising generation takes the place of the one that is passing, and all that is now being done in respect to changes of method, co-operative organization, and scientific instruction, ripens to maturity. Thus far, also, the immediate advantages of the altered situation in the county have been gained by the tenants more than by the landlords. Of the immigrants from Scotland only a few—those who lacked the personal qualities essential to success—have failed. The majority were men and women of grit and determination, and, though they had to work hard, they made headway.

In the case of one couple, the husband was originally a small farmer in Ayrshire, where he had twenty cows; but misfortune overtook him, and he lost everything. Some friends gave him a helping hand, and he and his wife were thus enabled to start life afresh on a small farm in Essex. At first they rose at three o'clock every morning, and each of them milked twenty-five cows twice daily. As compared with the old-time Essex farmer and his family, they led for some years lives almost of downright slavery. But where their predecessors failed they prospered. The husband had a good head for business, the wife was thrifty and an excellent manager, and the final result is that to-day they have five or six farms in Essex, comprising about 1,500 or 1,600 acres, and are the owners of 250 head of cattle.

Others of the Scotch settlers, who started with about 200 acres each some fifteen years ago, are now renting 500, 600, or 1,000 acres, are free of debt, and, with hardly an exception, are 'doing well.' As tenants, too, they have been quite content to remain, even without the apparent advantage of long leases. On this point Mr. Primrose McConnell says, in an article

on 'Experiences of a Scotsman on Essex Clays,' contributed by him to the *Journal of the Royal Agricultural Society:*

Coming from a country where long leases were the rule, it was a novel experience to have farms as yearly tenants; but I for one prefer to have it so. On this farm where I write there was at first a short lease—now expired—and we now sit on at a twelve months' notice. The Agricultural Holdings Act, *plus* nitrate of soda, makes me feel easy in my mind regarding this. The majority of incomers have had their choice in this matter, but I have not heard of any who have taken a long lease.

As regards the position of the landlords, I should like to place on record the views expressed to me in the course of a conversation with which I was favoured by Mr. Alec Steel, of Prittlewell Temple, Southend, one of the earliest and most successful of the Ayrshire settlers in Essex. With his comments, alike on the point in question and on the general situation, my sketch of Essex Past and Present may be appropriately concluded:

In my opinion (said Mr. Steel) many of the tenants are better off than the landlords, bearing in mind the difference in the positions which each must maintain. It is not only that the landlords have not yet had time to recover fully from the depression that came upon them, but the prospects of their complete recovery are heavily handicapped by the permanent burdens on the land. This is especially the case with regard to the payment of tithe. There is land I know of which for the last ten years or so has been let at 5s. an acre. But out of that 5s. the landlord has to pay 4s. 6d. in tithe. Reckoning other charges as well, the landlord gets nothing. In another instance, where the landlord receives 36s. an acre, the tithe alone amounts to 12s. the acre, apart from various taxes. In Scotland, where there is no tithe, there is no land out of cultivation. I never saw a derelict farm until I came to England. Here even poor land must pay 6s. an acre or so for tithe, before the landlord gets from it a single penny. If, however, a farm goes out of cultivation there is no tithe to be paid, so that an owner of land within forty miles of the greatest market in the world may find it better to let his land lie derelict than accept a tenant at a low rental.

When land represented the chief source of wealth in the country, it may rightly have been required to bear these burdens. The

chief source of wealth has now been shifted to commerce and manufacture; but the burdens on agriculture remain almost the same as before. The big importing firms in the cities are taking the place of the landed interests in the country, in the matter of the national food-supplies; but the former hardly know what tithe and the other burdens on the land mean, while the latter know only too well. Free the land of these permanent burdens, or make capital and commerce pay a fairer share of them, and British agriculture would then have a better chance. As it is, we compete on our own markets with foreign countries which not only enjoy all the benefits of cheap transport, but impose on agriculture no such burdens as we have to bear here. If only we could stand on equal terms with our competitors, and especially if we could produce as cheaply as they, we should have nothing to fear, and could beat them easily.

It is these permanent burdens on the land—the tithe, the taxes, and the ever-increasing rates—that, in my opinion, constitute the worst feature in the situation to-day, especially if agriculture be regarded as a business in which cost of production is all-important. Otherwise, I see around me in the county of Essex signs of marked improvement, compared with the conditions that prevailed when I first came here from Ayrshire. In my humble opinion, the decline in the price of wheat had done less harm to the Essex farmer of those days than his own previous prosperity. It was this which gave him his fine tastes and his expensive habits, and unfitted him for new conditions of agricultural production, which called for personal energy, arduous labour, and unremitting attention. It was this prosperity which unfitted his wife and family to play that part in a resort to fresh enterprises for which the wives and children of our Scottish farmers and labourers were so well adapted.

The Essex farmer of old was not equal to the fresh situation that arose; so his place has been largely taken in Essex by a new type of men. Of these, many were only labourers, or little more than labourers; but they started with this advantage: they came from a country where class distinctions were less pronounced than in England, and the labourer had better chances and higher aspirations. In the days when the growing of wheat brought wealth, the policy of the British farmer was to regard his labourers as little more than part of the farm machinery. He gave them the smallest wage on which they could live, and he would have scorned the idea of their attempting to rise to the same social position as himself. When the awakening of the labourer came, he abandoned prospects that appeared to be hopeless, went off to the towns, and left the farmer to his own resources.

In Scotland the position has been different. There the labourer's children and the farmer's children sit side by side in the schools, and grow up to manhood with a closer bond of sympathy between them than is the case in England. The labourers, again, have good gardens—as much as they can cultivate. They take more

land when they have saved money and their children can help them. They have ambition, and, the more they endeavour to realize that ambition, the wider becomes their mental horizon and the broader becomes their view of life.

In all this the Scottish labourer is encouraged by his master, who looks upon his men as helpmates rather than as servants, and, when the time comes and a favourable opportunity occurs, encourages them to take a small farm for themselves—even advancing a little money, if necessary, to assist them in making a start. That is the spirit which brings Scots and Scotland so much to the front, inspiring the love and the reverence for country and countrymen which make each individual feel that he has an honourable reputation to maintain far beyond the limits of his own doorstep!

What a pleasure, again, it is in after-years for a master, when his old servants come back, one by one, to tell him how they have bettered themselves in the struggle; to thank him for what he did for them in the days gone by; to relate pleasant incidents and experiences; and to compare notes with him on countless matters of mutual interest! Meetings and memories such as these make life worth living. They bring happiness alike to the master who has helped and to the successful man who returns to the old spot, to express gratitude for the chances opened out to him.

Then, there is that strongest of all characters—the Scottish mother. She instils individuality and strength of mind into her children, and she sets them a good example in the way of industry; for in the country districts she will start work at five in the morning—from, at least, the month of March to the month of September—and will hardly leave off until nine at night. She milks the cow, she feeds the pig and the poultry, she does countless other duties as well, and she not only shares her husband's ambition to get on, but proves herself his willing helper in all that he does. So, from small beginnings the Scottish labourer will rise to higher things, helped alike by his natural qualities and by the conditions he finds around him.

It was people of this type who came to Essex from Scotland to succeed English farmers whom prosperity had spoiled, and to put fresh life into a sadly depressed industry. They came eventually in such numbers that on some of the largest estates in the county at least 50 per cent of the tenants are Scotsmen. The re-establishment of the prosperity of Essex may, it is true, still be far from complete; but this I would say, without fear of contradiction: that the troubles of the last twenty years are making a finer class of British agriculturists than Britain ever had before, just as they are also putting agriculture itself on a firmer basis, by encouraging alike a more general resort to scientific teaching and a wider acceptance of the advantages of combination. What we need in addition is greater relief from permanent burdens on the land, with such improvement in our laws as would encourage the agriculturist to do his best for the land, and make him feel that he was, at the same time, also doing his best for himself.

CHAPTER IV

THE FRUIT INDUSTRY

THE increase in the consumption of fruit in this country is described in the Report of the Departmental Committee on the Fruit Industry of Great Britain, issued in the summer of 1905, as 'phenomenal.' 'In the last thirty years,' the Committee say, 'not only has the production doubled, but our importation of fruit (after deducting the re-exports), has risen from an insignificant quantity to the colossal amount of 13,000,000 cwt. per annum; and so expansive has been the public taste for fruit that this enormous increase in the supply has in many cases not affected the average prices realized to any appreciable extent.' There can be no doubt, the Committee think, that fruit is becoming more and more a regular article of food for all classes, and they regard it as probable that, except in special years of glut, the home supply has not kept pace with the demand.

It is not only the demand for fresh fruit that has increased, but the demand also for jam, preserved fruits, and cider. Mr. T. F. Blackwell, of the firm of Crosse and Blackwell, told the Committee that the demand for fruit in various forms grows quite as rapidly as the increase in the supply, adding that 'the taste for preserved fruit was growing enormously.'

Another witness, Mr. Chivers, spoke of jam manufacturers as the biggest customers of the fruit-grower, and mentioned that at his works at Histon, near Cambridge, over 100 tons of strawberry jam had been made up and put into jars in a single day. As for cider, not only has there been a substantial increase in the amount made, the value of the annual production in the two counties of Herefordshire and Somersetshire being put at about £500,000, but, according to one witness, there is 'no limit to the extension of the demand' for such qualities as well-instructed makers of the smaller type, giving personal attention to the manufacture, are able to produce.

Official statistics in respect to the actual extent of the fruit industry are somewhat vague and unsatisfactory. Taking those that refer to orchards only, as distinct from small fruit, I find the total acreage in 1904 given as 243,008, of which 236,705 acres were in England, 2,490 in Scotland, and 3,813 in Wales. But these statistics are compiled from returns voluntarily made by owners or occupiers; they are assumed to have omissions; they are known to exaggerate in a county like Hereford, where old orchards with a mere sprinkling of veteran trees rank as if they were in full bearing; while, *per contra*, no account is taken of orchards on any holdings of less than 1 acre in extent.

The total area under small fruit in 1904 was put (on the same basis) at 77,947 acres, but some of the returns under this head would be duplicated by those referring to orchards. It is, therefore, only an approximate estimate that the total amount of land in Great Britain under fruit generally is about 300,000 acres.

In respect to orchards, the figures—even taking them

for what they are worth—show an increase of 63·9 per cent. in thirty-one years, while those in respect to small fruit show an increase in acreage of 11·7 per cent. in seven years, no statistics at all trustworthy under the latter head being available before 1897.

More striking, however, than these inadequate official statistics is the evidence put before the Committee as to the developments going on in particular districts.

The country around Wisbech was once devoted mainly to wheat production. It has two distinct classes of soil—heavy and light. The former was naturally regarded in those earlier days as the more valuable of the two, the latter being considered almost worthless. To-day the position has changed completely, for wheat-growing has gone back, the light soils are utilized for potato-growing, while fruit and flowers have succeeded to the premier position once held by wheat. In 1875 there were only about 200 acres in the district devoted to fruit and flowers. In 1901 the total had increased to 3,768 acres. To-day it is estimated at 4,500 acres. On the wheat-fields of a few decades ago there are now grown prolific crops of apples, gooseberries, plums, pears, currants, raspberries, and strawberries, not to speak of spring flowers and a large output of bulbs.

The majority of the cultivators, too, come under the definition of small holders. Many of them started as agricultural labourers, with allotments which they looked after in their leisure time, getting larger plots as they saved sufficient money either to buy an acre or so right out or to pay down enough to secure a larger amount on mortgage. It is estimated that, exclusive of garden allotments, 200 acres in the district are held by occupiers of from 1 to 3 acres each, 1,000 by occupiers holding less than 10 acres, 1,000 by occupiers

holding between 10 and 20 acres, and 2,000 by occupiers holding over 20 acres, among the last-mentioned being a few large growers who have from 100 to 500 or 600 acres each. Most of the fruit is consigned to provincial markets, little of it coming to London, and the general results are so good that when one of the witnesses before the Committee—Mr. William Welchman, a solicitor of Wisbech, who himself farms 35 acres of orchards—was asked, 'Do you know what is the return of money to your district throughout the year?' he replied: 'It must be something enormous. It acts and reacts throughout the whole of the district. It employs the husband, the wife, the children, the baker, the grocer, the merchant, the shopkeeper, the retailer, and the wholesale man. It means a benefit all along the line. It is astonishing.'

I can supplement this very brief digest of the evidence given before the Departmental Committee concerning the Wisbech district by a few figures which may further interest the reader, and will, at least, show that the witnesses did not exaggerate.

The total consignments of fruit despatched by rail from Wisbech alone during the course of an average season may be put at from 14,000 to 15,000 tons. A record for a single night, taking both the Great Eastern and the Midland and Great Northern Joint systems, gives a total despatch (by passenger and goods trains) of 380 tons of fruit. The season starts in June with gooseberries (of which 200 tons have been sent from Wisbech in one day), and goes on with various crops until the end of October. Strawberries are handled in very large quantities, and even raspberries produce their 30 to 40 tons a day. The fruit is despatched in special trains, running either 'passenger' or 'goods,' and is consigned mainly to such centres as Liverpool, Man-

chester, Glasgow, Leeds, Bradford, Newcastle, Sheffield, Birmingham, Gloucester, Cardiff, etc.

One important feature of the traffic is that, although the total quantities handled by the railways are so great, they are consigned by hundreds of individual senders (the majority of whom are of the 'small' type), and consist of many thousands of separate packages, forwarded to a great variety of salesmen or others, and each requiring separate handling, with clerical work in addition. It has been regarded as impracticable to effect any combination among the growers with a view to bulking their lots (the reason given being the perishable nature of the commodity), so that each consigner acts independently of his neighbour, while even a single consignment may be represented by 300 separate baskets ('chips'), containing each only a few pounds of fruit.

The result of these conditions is that a total of 53 tons 15 cwt. of fruit taken from Wisbech by the Midland and Great Northern Joint Railway, per passenger train, in the course of one day's operations, was represented by 17,289 separate packages, principally 'chips.' Even this figure has been surpassed in the experience of the Great Eastern Company, which once dealt, at Wisbech, with 25,122 packages of fruit in one day, sent by passenger train, irrespective of consignments by goods trains, one reason for this great number being, perhaps, that the Great Eastern station is situate in a part of the district where there is a larger proportion of small growers.

It follows, therefore, that whatever the traders may think of the rates that are charged for transit, the railway companies have to do a good deal of work in return for their money, apart from the cost of running special trains. In fact, to handle the traffic at all with

the expedition which the nature of it demands, each company requires to have at Wisbech, during the busy season, a total staff (including clerks, draymen, etc.) of something like 100 men. The growers naturally do not deliver their consignments until the latest possible minute, in order that the fruit shall be sent off as fresh as may be; and it is no unusual sight, especially in the strawberry season, for the railway-yards to be blocked up by 100 or more vehicles at a time, these being of every imaginable variety, from a heavy dray to a sugar-box on wheels, and all wanting to deliver fruit at the same moment.

'You should see us then,' said to me a Wisbech railway-man who had shared in the fray—and still lived; 'you would wonder how we get through it.'

But in the course of the next year or so there will be still more for them to get through. The area under fruit cultivation around Wisbech is constantly increasing. In one locality an additional area of 25 acres was being prepared in the autumn of 1905 for strawberry cultivation, and smaller pieces of land were being taken up in all directions wherever available. Wisbech, however, represents only part of what is known as the 'Cambridgeshire fruit-growing district.' Included therein, on the south, is an area extending from near to Cambridge through Histon (population 1,000), Oakington (465), Long Stanton (340), and Swaversey (890), in the direction of St. Ives, and thence through Haddenham (1,686) and other places to Ely. The production of fruit by the group of small villages within the triangle thus formed—taking Cambridge and Ely as the base and St. Ives (Hunts) as the apex—is not only extremely substantial, but still constantly increasing; so that in the 'Cambridgeshire district,' as a whole, the fruit traffic by goods trains on the Great Eastern Railway

STREET SCENE IN WISBECH : A CONSIGNMENT OF POTATOES.

(exclusive of smaller quantities carried by passenger train) has been as follows for the years stated:

Year.	Tons of Fruit.
1902	6,855
1903	3,624
1904	13,983
1905	8,700

Owing to the unfavourable season, there was, it will be seen, a considerable decline in 1905 as compared with 1904; but the great increase in 1904 over previous years is sufficiently suggestive of the expansion that has taken place in the fruit-producing possibilities of the district. A fair quantity of the fruit included in these figures comes to London, but the great bulk of it goes, viâ March, to Sheffield, Manchester, and other Midland and Northern towns.

Of what is taking place at Evesham and on the Toddington Estate, Gloucestershire, I shall speak in detail later on.

In the Holt district of Denbighshire (situated in the Valley of the Dee, and possessing climatic conditions directly influenced by the Gulf Stream) very little fruit, with the exception, perhaps, of damsons, was produced prior to 1861. There are now 800 acres devoted to fruit, principally strawberries, the cultivation of which is steadily increasing. For the last ten years the amount of land in the locality, previously used for grazing or for the growing of potatoes, grain, etc., that has been changed each year to fruit production is about 40 acres, and there is said to be plenty of other land higher up the valley that could be similarly treated. Of the actual cultivators at Holt, 80 per cent. occupy from 1 to 3

acres; 10 per cent. have from 3 to 10 acres; and the remainder have over 10 acres. The small growers consign principally to Manchester and Liverpool; the larger ones send to markets as far away as Scotland and Ireland. In the fruit-picking season employment is found for 1,000 or 1,500 pickers, chiefly discharged soldiers or army reserve men and their families, from various Lancashire towns. Such is the transformation going on in the district that, as one local witness told the Committee:

> Persons who were solely engaged in agricultural and dairy farming a few years ago are gradually relinquishing the cultivation of cereal crops, or of cheese-making, and are devoting themselves more and more to strawberry cultivation; and probably in a few years' time the former occupation will have passed away entirely from the parish of Holt.

It is, further, interesting to know that not only is the land used for the cultivation of strawberries in and around the Holt district being extended every year, but the large growers are planting all the hedges of the fields with damson-trees, with the double object of protecting the strawberries from the weather and of increasing the production of damsons.

With all these newer districts coming to the front, it is not surprising to learn, on the authority of Mr. W. W. Berry, who has 130 acres under fruit at Faversham, that the fruit area in Kent is not very largely on the increase now. But Kent, long famed as 'the garden of England,' gained a leading position years ago, and her capacity as a fruit-producer is well brought out by some figures given to the Departmental Committee by Mr. Vincent W. Hill, General Manager of the South-Eastern and Chatham Railway, in respect to the fruit traffic on that line. Taking 1901 as 'a very fair fruit-year,' Mr. Hill adduced statistics which may be tabulated thus:

FRUIT CARRIED ON SOUTH-EASTERN AND CHATHAM RAILWAY IN THE YEAR 1901.

	Tons.
ENGLISH FRUIT:	
By passenger train to London	4,368
By goods train to London	31,779
By passenger train viâ London, etc. ...	4,331
By goods train viâ London, etc. ...	3,079
Total English fruit	43,537
CONTINENTAL FRUIT:	
Carried viâ Boulogne and Calais ...	6,952
Total English and Continental fruit ...	50,489

The quantities going viâ London are transferred to other companies for direct delivery to various Northern towns, and Mr. Berry said of this particular service: 'I want nothing better than the way in which a portion of our business is dealt with. It is a very high price, but it is splendidly manipulated—I mean the fast fruit traffic to the North of England.' It need hardly be said that the development of this traffic, by means of which the risks of congestion on the London markets are lessened, is essentially a step in the right direction.

Another noticeable point in the figures is the small proportion of foreign fruit carried on the South-Eastern and Chatham system as compared with the English, while even this small proportion would include considerable quantities of foreign fruit imported before the home-grown supplies were ready and then falling off.

In Scotland the principal fruit-producing district is the Clyde Valley, which is now, as the Departmental Committee were informed, 'nearly altogether orchards, strawberries, gooseberries, or fruit on trees.' About 1,000 acres are devoted to apples, plums, etc. (gooseberries and raspberries being grown under the trees), and between 2,000 and 3,000 to strawberries. Many of the growers are workmen who have secured an acre

or so of land, on which they have built themselves a house, using the remainder of the ground for fruit-growing. It was a small holder of this type who introduced into the district the tomato-growing industry, now being extensively followed there. According to Mr. William Temple, who gave evidence for the Clyde Valley growers, there are 400 holders of 3 acres, 300 of 5 acres, 500 of from 10 to 15 acres, and about 100 who grow strawberries on 20 acres or over.

Fruit-growing in the Blairgowrie district—situate, as Mr. J. M. Hodge has well described, 'on the last slope of the Grampians, looking down on the fertile Valley of Strathmore'—has now been carried on for over forty years; but it was twenty-five years ago that it began to attain to serious dimensions as an industry, while in 1899, and again in 1903, the further increase of the business received such an impetus—owing mainly to the combined effects of small holdings and of co-operation—that the quantity of fruit sent away from the district now amounts to 1,500 tons a year. Even that figure is likely to be doubled in the course of three or four years, judging from the amount of additional planting that has been done. Climate and soil are especially well suited to the production of raspberries, and one witness from Blairgowrie told the Departmental Committee how the raspberry-canes there grow to a height of 5, 6, and even 8 feet—so that the pickers have to use ladders—and how in some instances 6 tons of fruit to the acre have been gathered, the average being 3 or 4 tons. The present area under fruit is about 800 acres. The agricultural value of land in the district is from 25s. to 30s. per acre. Leased land for fruit culture lets at from £5 to £10, and small allotments round the villages or towns realize £12 per acre. The

principal markets for the fruit are Manchester, Liverpool, Leeds, Bradford, and Newcastle. Large quantities are sold to jam-makers. As for the profits made, Mr. J. M. Hodge, in an article contributed by him to *Chambers's Journal*, giving some results of 'Fruit-culture on Small Holdings' in the Blairgowrie district, mentions the case of one raspberry-grower who from a single acre of ground made a total profit in nine years of £492.

A considerable proportion of the growers in the Blairgowrie district are small holders, cultivating, on an average, 5 acres, though many of them have only 2 or 3 acres. These small holders have formed themselves into a co-operative society, and they dispose of their fruit through the secretary, who deals with it in bulk, saves them all trouble in finding a market, and is generally able to dispense with salesmen, unless they buy outright. He himself is paid a commission on the business done. Since 1903 there has been a substantial increase in the number of small holders in the district. In that year a syndicate bought the estate of Wester-Essendy, three miles from Blairgowrie, and, keeping 45 acres to plant as a fruit farm for themselves, cut up 205 acres into small holdings of from 5 to 25 acres each, which they offered to working men desirous of taking up fruit-farming as a business. The price they charged was £50 per acre. Part of the purchase money was to be paid down, and the balance cleared off at the rate of £5 per acre per year, plus 4 per cent. interest. On these terms the whole of the holdings were taken up within a year. The syndicate does cartage work for the small holders, at a very low rate, and the co-operative society provides them with an outlet for their produce. So well has the scheme answered that more estates in the neighbourhood are being dealt with in the same way.

In their report the Departmental Committee expressed the view that, instead of the fruit industry in Great Britain having been overdone, 'there would appear to be room for a further extension,' and they found it 'evident that the profits from fruit-growing, taking one year with another, are far greater than those from ordinary farming,' while it is 'undoubtedly the case that the planting of fruit greatly increases the value of land.' Then, they continued, the planting of fruit leads to great additional employment of labour, and 'no better means can be devised for bringing people back to the land than an extension of the fruit industry, where it can be done profitably.' There could be but little doubt, they thought, that there is abundance of land, in addition to the areas already under cultivation, where fruit-growing might be profitably undertaken.

Reverting to the question of jam production, I may mention that there are in the United Kingdom between 200 and 300 jam-makers, large and small, and that the quantity of fruit required every year by five alone of the leading firms represents a total of 20,000 tons.

Down to a few years ago the jam-makers who use up such large quantities of fruit as these figures suggest depended mainly on foreign supplies, partly because they may have been somewhat cheaper, but more especially because the British production was not equal to requirements. To-day there is an increasing tendency among British jam-makers to depend on British fruit for the bulk of their supplies. I am told by those in a position to know that the discussions which have arisen during the past two years concerning the general industrial and commercial position of this country have especially appealed to the patriotic instincts of the preservers, and inclined

them to show a distinct preference for British over foreign fruit, provided the home producers can let them have precisely what they want.

Already, as it happened, the considerable expansion in the fruit-growing industry throughout Great Britain had put it in the power of the home producers to meet better than they were able to do before the wants of the jam-makers; and one result of the dual change is that the whole business has been practically reorganized, and placed on a footing more satisfactory for everyone concerned. At one time very little fruit was sent direct to the preservers, who relied mainly on such supplies as they found in the markets. Under the altered conditions the jam-makers visit the fruit-growing districts early in the season, learn what the prospects are, and make contracts, which become approximately uniform prices for the trade. This procedure has, of course, only been possible since the increase in the production of fruit at home; but the result is beneficial, not only directly to the fruit-grower, who knows in advance what he will get for his crop, but also to the jam-makers, who all, practically, buy their English fruit at the same price, and are less likely to undersell one another in consequence of one, say, having been able to buy at £6 a ton on the Manchester market—owing to a temporary 'glut' there—fruit for which a competitor in another town has had to pay £10 a ton.

Healthier conditions have thus been introduced all round. Prices are steadier for the jam-makers, who are learning to depend more and more on British and less and less on foreign supplies; and the fruit-producers at home, dealing direct with the jam-makers, not only find an outlet with them for enormous quantities of fruit, but, by keeping these quantities off the open market, stand to gain a better price for what

they send there in the interests of the ordinary consumers.

The only person who, at first sight, appears likely to suffer is the foreign producer; but he is finding compensation in those cheaper prices of sugar which have led to a substantial increase in the number of jam factories on the Continent, and to a consequent decrease in the need for 'dumping' surplus supplies on to the shores of a country which thus seeks, so far as it can, to meet its own requirements. Nor, it would seem, is there much fear that the foreigner will attempt to compete with the Britisher in the matter of jam. Some years ago certain Dutch firms made a strong effort to capture the British market for jam; but the commodity they sent over was so much inferior to the British article that the latter had no difficulty in maintaining a supremacy that—especially with the use of the best and freshest of British fruit—nothing is now likely to disturb.

These various developments in the jam-making industry have combined with the increased direct consumption of fruit in this country to bring about important results for fruit-growers, and the scope for their activity and enterprise is certainly greater to-day than it has ever been before.

But, although this praiseworthy policy of the British jam-makers, seconded by the action of the home fruit-growers in catering for their wants, may reduce the chances of the foreigner on our markets as regards fruit specially adapted for jam-making, there would seem to be still greater call for their activity and enterprise in regard to other classes of fruit. At a conference on fruit-growing held in London in October, 1905, Sir Trevor Lawrence, who presided, pointed to the fact that in 1904 there was imported into this country fruit

of the value of £10,237,000, and of this sum £4,538,000 represented the value of fruit which could have been grown in this country, the items being—raw apples, £2,118,000; cherries, £319,000; currants, £143,000; grapes, £827,000; pears, £503,000; plums, £526,000; strawberries, peaches, apricots, £102,000.

It will be seen that the largest item in this list is the one referring to apples; and here there can be no doubt whatever that the neglect of the British grower always to produce the right sort of apples, in sufficiently large quantities, and to send them to market properly graded and in attractive form, has been of immense advantage to colonials and foreigners, who have seen the weakness of the British growers, and hastened to take advantage of our shortcomings. In fact, Mr. James Harper, in a paper which he read at the same conference, said 'it had come to this: that the home farmer, if he would hope to hold his own against foreign competitors, must copy their methods. They had taught him, if he would but see, that attractiveness and evenness of sample were two of the main factors to the successful disposal of his produce.'*

Concurrently, therefore, with the great expansion in the fruit industry now proceeding in Great Britain, and concurrently also with the improved outlook for soft fruit, there would seem to be special need to place the production and the sale, especially, of apples, on a better footing, if English growers are to maintain their own in regard to that particular class of fruit, now

* To test this matter for myself, I sent, while writing this chapter, to a farm in the country for a hamper of English Blenheims. The hamper duly arrived, and I found on the top a fairly presentable lot, but underneath, mixed up with a certain proportion of good-sized specimens, were many that were miserably small, with a considerable number of windfalls and bruised or worm-eaten apples that should have been kept back for the pigs.

imported to the tune of over £2,000,000 a year. Special attention, therefore, may well be directed to a commendable movement which has quite recently led to the formation of a body known as the Hereford Co-operative Fruit-Grading Society, to whose operations I shall devote a separate chapter in connection with the organization movement.

While the present work is passing through the press, I have received a copy of a thirty-two-page booklet, entitled 'Fruit, Flower, Vegetable, and Potato Growers' Guide,' which has just been issued by the Newcastle-on-Tyne and District Fruit and Potato Merchants' Association, Limited, Pringle's Buildings, St. Andrew's Street, Newcastle-on-Tyne. The special purpose of the Guide is 'to assist growers in placing their produce in populous towns of the North, where ready markets are always obtainable, whether goods are sent to be sold on commission or bought direct from the grower.' Notes which are given with respect to grading, packing, etc., are, it is further explained, 'intended to help growers to realize better prices by getting their produce to these markets in prime condition and well selected, to enable producers to secure the profits now going to foreign growers.' Then there is a list of the chief fruit, flower, vegetable, and potato merchants in Newcastle and district, 'to enable growers to make the best possible arrangements for the sale of their produce'; with a corresponding list of growers in and around Wisbech, whose names and addresses are given 'to help the merchants to buy more extensively in the

district, and thus bring growers and buyers more freely together.' Tables are added showing the railway classification of fruit and vegetables, the rates for those commodities from Wisbech to the leading towns on the North-east Coast, and the services for fruit traffic to the North on both the Great Eastern and the North-Eastern Railways.

From this most useful and essentially practical little Guide I take the following, as having a direct bearing on what I have already stated:

The importance of the English-grown fruit and vegetable trade is increasing as the public taste for more freshly-gathered produce develops, and it is in the hope that growers may be helped to make the most of their opportunities that this pamphlet is issued.

The Fruit Committee's 1905 Report, section 72, states:

'It seems to be generally held that English fruit is preferred to foreign for the table—no doubt on account of its freshness—and that preservers for a similar reason, would always prefer to make jam from English fruit, if only the supply was assured.'

The concluding clause is the keynote of the matter. The public want the best and the freshest, and if growers will profit by our experience of the foreign fruit-growers' trade methods, they may confidently hope to replace the enormous quantity of fruit which the British nation now buys from abroad by home-grown produce.

Foreign fruit-growers' associations vigorously maintain the standard of their products—

By good cultivation of good trees *only*.
By preventing small and poor fruit from being exported, or lowering the standard quality.
By close grading of all fruit and vegetables.
By good packing.

And consequently the fruit they send to this country has beaten out of our great markets the mixed, ungraded, badly-selected and badly-packed fruit from many British orchards, etc.

The trade is an enormous one, as may be seen from the following tables, A, B, and C, and be it noted that these tables only contain fruit which can be grown to perfection in our own country. Oranges, lemons, and other warm climate fruits, are not included:

TABLE A.—TOTAL QUANTITIES OF FOREIGN AND COLONIAL FRUIT AND VEGETABLES IMPORTED DURING THE YEARS 1900 TO 1904 INCLUSIVE.

Description.	Quantities.				
	1900.	1901.	1902.	1903.	1904.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Apples, raw	2,128,541	1,830,210	2,843,517	4,569,546	3,771,781
Cherries, raw	242,525	212,683	166,359	110,192	260,724
Currants ,, ...	64,462	70,402	76,080	76,419	116,888
Gooseberries, raw	26,045	21,735	27,564	34,312	36,215
Pears ,, ...	476,901	348,886	491,906	271,518	535,614
Plums ,, ...	423,019	263,700	541,136	594,626	493,707
Strawberries, ,, ...	52,225	38,604	40,211	32,644	34,524
Unenumerated, raw (raspberries, etc.)	494,722	535,247	500,679	688,873	654,765
Total raw fruit	3,908,440	3,321,467	4,687,452	6,378,130	5,904,218
Fruits preserved	995,212	828,541	654,170	732,660	599,335
Fruit-juice (adjusted)	101,986	58,044	90,401	47,610	70,389
Cherries drained in bulk	—	6,057	15,616	17,992	16,342
Fruit sugared	—	168,268	254,350	357,717	455,929
Pickled vegetables (adjusted)	299,888	246,154	230,929	207,037	224,777
Vegetables, dried	—	186,515	57,385	4,085	5,074
,, canned	—	218,775	264,775	330,242	284,128
,, unenumerated	Weights	not recorded			
Tomatoes	833,030	793,995	783,894	1,071,927	1,134,721
Onions	3,798,688	3,910,344	4,076,542	4,620,277	4,444,585
Potatoes	8,910,962	7,076,726	5,699,090	9,150,202	9,993,965
Total fruit and vegetables ... (exclusive of fruits not easily grown in England)	18,848,206	16,814,886	16,814,604	22,917,879	23,133,463

TABLE B.—TOTAL VALUES OF FOREIGN AND COLONIAL FRUIT AND VEGETABLES IMPORTED DURING THE YEARS 1900 TO 1904 INCLUSIVE.

Description.	Values.				
	1900.	1901.	1902.	1903.	1904.
	£	£	£	£	£
Apples, raw	1,224,657	1,182,782	1,923,474	2,781,643	2,118,294
Cherries, raw	308,363	213,585	216,421	167,142	319,824
Currants „	87,170	75,308	92,112	110,535	143,983
Gooseberries, raw	14,626	11,420	16,919	28,444	21,024
Pears „	366,860	296,411	439,536	326,463	503,573
Plums „	392,696	243,705	515,059	622,268	526,438
Strawberries „	85,949	51,290	58,080	49,362	49,536
Unenumerated, raw (raspberries, etc.)	289,750	302,013	308,998	449,413	372,575
Total raw fruit	2,770,071	2,376,514	3,570,599	4,535,270	4,055,247
Fruits, preserved...	935,818	801,584	380,551	485,539	394,776
Fruit-juice (adjusted)	83,055	42,663	67,067	40,105	61,185
Cherries drained in bulk	—	21,484	54,555	66,877	58,058
Fruit sugared	—	260,239	381,835	532,428	695,876
Pickled vegetables (adjusted)	176,948	145,081	121,797	109,842	117,350
Vegetables, dried	—	140,442	34,740	8,222	8,228
„ canned	—	253,613	283,063	340,659	294,267
„ unenumerated	766,394	389,829	468,411	396,784	457,491
Tomatoes	792,339	733,471	700,126	953,192	1,007,274
Onions	852,496	869,397	999,942	1,003,016	1,076,472
Potatoes	2,234,569	1,851,587	1,589,432	2,603,238	2,437,971
Total fruit and vegetables ... (exclusive of fruits not easily grown in England)	8,611,690	7,885,904	8,652,118	11,075,172	10,664,195

TABLE C.

AVERAGE PRICES PER CWT. OF FOREIGN AND COLONIAL FRUIT AND VEGETABLES IMPORTED DURING THE YEARS 1900 TO 1904 INCLUSIVE.

Description.	Prices per Cwt. (to the nearest 1d.).				
	1900.	1901.	1902.	1903.	1904.
	s. d.	s. d.	s. d.	s. d.	s. d.
Apples, raw	11 6	12 11	13 6	12 2	11 3
Cherries, raw	25 5	20 1	26 0	*30 4	24 7
Currants ,, ...	27 1	21 5	24 3	*28 11	24 8
Gooseberries, raw	11 3	10 6	12 3	*16 7	11 7
Pears ,, ...	15 5	17 0	17 10	*24 1	18 10
Plums ,, ...	18 7	18 6	19 0	*20 11	21 4
Strawberries ,, ...	32 11	26 7	28 11	*30 3	28 8
Unenumerated, raw (raspberries, etc.)	11 9	11 3	12 4	*13 1	11 5
Fruits, preserved	18 10	19 4	11 8	13 3	13 2
Fruit-juice (adjusted) ...	16 3	14 8	14 10	16 10	17 5
Cherries drained in bulk ...	—	70 11	69 10	74 4	71 1
Fruit sugared	—	30 11	30 0	29 9	30 6
Pickled vegetables (adjusted)	11 10	11 9	10 7	10 7	10 5
Vegetables, dried	—	15 1	12 1	40 †3	32 †5
,, canned... ...	—	23 2	21 5	20 8	20 9
,, unenumerated...	—	—	—	—	—
Tomatoes	19 0	18 6	17 10	17 9	17 9
Onions	4 6	4 5	4 11	4 4	4 10
Potatoes	5 0	5 3	5 7	5 8	4 11

The prices as given per cwt. are generally most useful, but if prices per ton are required, read the shillings values as pounds sterling and divide the pence by ·6 to derive the fractions of £1 as

* The higher prices recorded in 1903 for soft fruits were obtained by foreign growers owing to the very wet, dull season of that year, when English fruit did not mature well; consequently Continental producers pressed their advantage and rushed their fruit into the high-priced English markets.

† Haricot beans included to April 14, 1902, after which date duty was levied on them and they were separately recorded under 'corn, etc.,' 'beans, haricot.'

shillings per ton — *e.g.*, apples, 1900, £11 10s. per ton, and in 1904, £11 5s. per ton.

Beyond those quantities and values the main fact of public interest is the price per cwt., which the Blue-Books fail to record. We have therefore worked them out on Table C.

The prices given in Table C are derived from values declared by Continental senders who would rather under than over declare, and as those prices do not include over-sea and railway carriage, commissions, cost of exchange, remittances, etc., we may be sure that the values realized in Covent Garden (London) and other markets were considerably higher. However, they are useful as indicating the comparative prices at Continental ports from year to year, when considered in connection with the quantities and values in Tables A and B.

The great fact which the values in Table B should bring home to British growers is, that we are sending about £11,000,000 per year to their competitors abroad, for fruit and vegetables which could be better grown on English soil, to the profit of English growers.

The fruit market is not a stationary one. It is extending. Take one instance—tomatoes. A few years ago tomatoes were a luxury for the wealthy; now they are to be found in the homes of the workers in our cities, etc. The demand is yearly increasing. Has the British grower met the demand? The following figures show that he has not:

In 1900 the Continental growers sent us 833,030 cwt. of tomatoes, value £792,339.

In 1904 they sent us 1,134,721 cwt. of tomatoes, value £1,007,274.

Most of that £1,007,274, which went abroad might have gone to the British growers if they had kept abreast of foreign improved methods, and made the best use of our growing markets.

The home grower has, it is true, made encouraging progress in some directions during recent years, notably in the culture of strawberries, and to some extent in tomatoes, etc., but the enormous sums which still go abroad to pay for foreign-grown fruit point a telling lesson to the British grower. This is most noticeable in the case of the £2,000,000 worth of apples we annually purchase abroad, although we could better grow them in England. The foreigner is getting more of our money every year. Are we going to let this go on until we become too impoverished to control our home markets?

CHAPTER V

A GLOUCESTERSHIRE FRUIT FARM

No better example of what may be done in the way of fruit culture on an exceptionally large scale could well be desired than that which is offered by the orchards on the Toddington Estate, Gloucestershire, once the property of Lord Sudeley, and now belonging to Mr. Hugh Andrews.

The estate covers some 8,000 acres in a delightful expanse of country that, geographically speaking, forms a continuation of the Vale of Evesham. Its broad stretches of extremely fertile land, well sheltered from east winds, constitute an almost ideal spot for the production of fruit, and this is especially the case as regards those portions of the estate which are situated on the slopes of the Cotswold hills, just above what is locally known as 'the frost line.'

It was under these essentially favourable conditions that Lord Sudeley started fruit-growing on an extensive experimental scale many years ago, and the present proprietor has continued and expanded the undertaking with renewed energy and enterprise, watching assiduously over its further development along strictly commercial lines.

Mr. Andrews is of opinion that the production of fruit should be done on either a very small or a very

large scale. In the one case there is the advantage of close personal attention on the part of the individual grower, assisted by his family, with small outlay for labour; in the other, important and far-reaching advantages are gained by the wholesale purchase of requirements for the fruit farm, and also the despatch in large quantities of produce by rail to distant parts of the country. Mr. Andrews himself has entered upon a 'very large scale' experiment, and, though various difficulties have had to be encountered and overcome, he looks forward to the ultimate results with every feeling of confidence.

The area now under fruit cultivation at Toddington is upwards of 800 acres. Of this, fully 600 acres are planted mainly with plum-trees, 100 acres with apple-trees, and 25 acres with cherry-trees, while a considerable amount of bush fruit is grown, either in conjunction with the 'top' fruit or in separate fields. In this way there are 40 acres of scarlet, or 'Alpine,' strawberries; 100 acres of ordinary strawberries; 100 acres of raspberries; 100 acres of black currants; 65 acres of red currants; 30 acres of gooseberries; with about 80 acres in course of preparation for other crops of bush fruit. There are, also, 35 acres of nuts, and 6 acres devoted to glass, for the production of grapes, peaches, nectarines, figs, strawberries, tomatoes, cucumbers, radishes, mint, orchids, chrysanthemums, etc. Supplementary to the orchards, there is a large apiary, together with the beginnings of a poultry industry.

Much replanting has been going on at Toddington, and a good deal of the acreage is not yet in fruit-bearing condition; yet the actual annual output of fruit grown in the open is already no less than 2,000 tons. In the season of 1904 plums yielded 1,357 tons, damsons 200 tons, apples 180 tons, greengages 23 tons, and

cob-nuts 21 tons, the balance of the total tonnage being made up of strawberries, raspberries, gooseberries, etc. The quantities of these will, of course, be substantially increased when the young bushes planted during the last few years come into bearing. It is expected that the yield of bush fruit and strawberries will thus be increased to 400 tons in a season. One hundred tons of potatoes were lifted in 1905, together with cabbages, sprouts and savoys, grown as 'catch crops' under the trees. In this same year the extensive glass-houses on the estate produced, among other things, a large tonnage of grapes, 4,500 peaches and nectarines, 19 tons of tomatoes, 1,000 dozen cucumbers, 4,000 bundles of rhubarb, 1,200 bunches of roses, and 233 dozen arum lilies.

The bulk of the fruit grown on these 800 acres at Toddington goes, directly or indirectly, to jam-makers. A considerable quantity is used in a jam factory on the estate which is rented by Messrs. T. W. Beach and Sons, Limited. The advantage of having such a factory immediately adjoining the fruit-growing area, instead of in the congested districts of a large city, is so obvious that in the near future other makers will probably avail themselves of opportunities so favourable. The remainder of the Toddington supplies goes to jam-makers throughout Great Britain and Ireland.

Alike in the production and the ingathering of the fruit, etc., so large an enterprise naturally necessitates the employment of a considerable amount of labour, apart from the transport of the fruit or the working of it up in the jam factories. Of regular hands on the estate the number ranges from 150 to 250. Mr. Andrews entertains strong views as to the paramount importance of keeping 'the bone and sinew' of our increasing population on the land, and he fully shares in the

belief that one of the best means of achieving this aim is to be found in an adequate supply of proper housing accommodation. He has, accordingly, erected some thirty additional cottages on the estate during the last three years, in the interests of the workers.

The staff of regular hands is supplemented in the fruit season by 500 or 600 women and girls, engaged temporarily as pickers. Of these, 200 belong to the neighbourhood, and the remainder are brought in from some of the large manufacturing districts. For the accommodation of the strangers, buildings have been erected on different parts of the estate, sufficient for the sleeping of 400 persons at one time. In those that I saw there were three beds in each cubicle, and the sleeping quarters themselves formed an open square, in the centre of which was a large living-room, where meals could be prepared. The compound is under the charge of the foreman and his wife; medical attendance is provided through a 'club' which the pickers form, and a clergyman holds a service in their interests on the Sunday. Not only is employment thus found for a considerable number of women and girls, at good wages, for a period of about three months in the year, but the occasion is regarded by them in the light, also, of a pleasant and health-giving holiday.

All the same, the work involved may be heavy enough—and also anxious enough—in the height of the season, so long as it lasts. The 1,300 or 1,400 tons of plums, for instance, have all to be gathered in a very short period, and Mr. Martin, the manager of the fruit farm, pointed out to me the difficulty of dealing with such quantities, should the weather be unfavourable at that particular season—a shower of rain, for instance, making it necessary to leave the perfectly ripe fruit on the trees until it had again become dry. Then the

various details connected with the picking, putting on rail, and disposal of the produce in the best possible condition, necessitate a considerable amount of effective organization to meet adequately the sudden rushes that occur.

The possibility of securing this effective organization has been substantially increased of late by an improvement in rail communication. Up to quite recently all the fruit despatched from Toddington to various parts of the country went to the Midland station at Beckford, five miles away. The Great Western Railway Company are now constructing a line which, passing through Toddington (with a station almost in the centre of the estate), will link up Cheltenham with Honeybourne, and thus establish new and direct communication between the western and the northern sections of their system. At the time of writing, the line has been completed as far as Winchcombe, the station beyond Toddington; but already Toddington has secured direct access to Birmingham and the North, viâ the Great Western, as an alternative to the route viâ Beckford on the Midland. Alongside the Toddington station Mr. Andrews has constructed a depôt and packing-shed, 100 ft. by 34 ft., for the more convenient handling of fruit intended for consignment by the Great Western. On one side of the depôt there are three bays, into which the vans bringing the fruit can be backed, so that the baskets will be on the floor level, and on the other side there is a platform to allow of the consignments being loaded direct into the railway-waggons on the siding that immediately adjoins the depôt. There is also on the estate another large depôt, where consignments for transport by the Midland Company are collected and despatched.

The improvement in rail facilities at Toddington will

probably lead to a large increase in the production of vegetable crops, hampered in the past by the cost of cartage. Hitherto regarded mainly as 'catch crops,' they will, under the improved conditions of transit, now be found more profitable. In any case they should yield better financial results, and thus add to the general prosperity of the fruit farm as a whole.

There are, in fact, unlimited possibilities of further development at Toddington, especially in the supplementing of 'large' by 'small' scale fruit-growing. I see no reason why Toddington should not, in course of time, become a second Evesham, now that it has this better rail communication. A more favourable locality for a collection of small holdings, cultivated by capable and energtic men, engaging in fruit production and market-gardening, could hardly be found in any part of England.

Here, of course, the all-important question is the point of view from which the land-owner would regard such an idea, and during my visit to Toddington I took the opportunity of discussing the subject with Mr. Andrews. What he said confirmed me in certain impressions (to which I shall revert later on in the present volume, in connection with the subject of small holdings) as to the difficulties likely to be encountered in establishing, on a large estate, a colony of the type suggested, when the whole responsibility is left on the hands of the land-owner. Mr. Andrews, I found, was distinctly sympathetic towards the small holdings movement, but he felt that such undertakings should be entrusted to syndicates or powerful combinations, with capital sufficient to enable them to grapple with the housing problem. So I ventured to put the following question to him: 'Suppose that some intermediary between yourself and the prospective small holders could

be created, in the form either of a co-operative organization or of a syndicate, and that such intermediary undertook the whole responsibility, trouble, and expense of erecting cottages and other necessary buildings required for settling the small holders, paying you an agreed rental under the terms of a lease, would not that meet the position, and would you then be willing to let some portion of your estate to such a body for the purposes in question?' To this inquiry Mr. Andrews replied at once in the affirmative, saying that, although he would not be disposed to sell, he would be willing to let any quantity of land under lease for long periods and on suitable terms. He would even be willing, he added, to give up, for experimental purposes, if desired, some portions of land already planted with fruit, so that the small holders could begin operations at once, without having to wait for the coming to maturity of trees and bushes on land previously undeveloped.

This sympathetic attitude on the part of a large land-owner, himself conducting an important commercial undertaking connected with the land, is, I think, well worth recording, and I am inclined to think there are many other land-owners in the country who would be equally ready to act on the same lines. Mr. Andrews was further of opinion, however, that something should be done beyond merely putting small fruit-growers on the soil; and I found he was especially keen on the establishment of central experimental farms, where the various problems connected with fruit culture on principles at once scientific and commercially sound could be effectively worked out. If, he said, such a farm were set up in that district by the Government (and he thought it most desirable that experimental farms should have the status of Government institutions), he would be quite willing to afford facilities, or assist, in

regard to a site, and he would also, if desired, contribute towards the cost. But wherever and under whatsoever conditions central experimental farms might be established, he held that they were imperatively necessary in the best interests of the fruit and kindred industries.

Although himself engaged in operations of such considerable magnitude, Mr. Andrews is a firm believer in agricultural combination. He is an active supporter of the Winchcombe, Toddington and District Agricultural Co-operative Association, which, like the Beckford Farmers' Association, Limited, has been formed for the joint purchase of farmers' necessaries, both being affiliated to the Agricultural Organization Society. He was also one of the founders of the Winchcombe Co-operative Auction Mart, Limited, which started operations, in 1904, on a site immediately adjoining Winchcombe Railway-station, and did so well in the sale of cattle, sheep and pigs during the first year that it was able to pay to the tenants and other shareholders a dividend of 5 per cent. (This third society is also connected with the Agricultural Organization Society.)

So the Toddington Fruit Farm is being conducted under conditions that are essentially progressive, and foreshadow important possibilities in the future. One feels in visiting the district, that, however great the results already attained, they are only in an adolescent stage, and that still greater results must come, especially if competent but despairing workers, who now think their only hope of economic salvation lies in settling in some country beyond our shores, could be enabled, under suitable conditions, to establish their homes, instead, amid the picturesque surroundings of this very promising corner of Gloucestershire.

CHAPTER VI

FLOWERS

In the course of a paper on 'The Progress of Market-Gardening Cultivation during Queen Victoria's Reign,' which he read before the Royal Agricultural Society in 1897, Mr. Assbee, Superintendent of Covent Garden Market, said:

> Large as have been the areas of agricultural land transferred from the farmer to the market-gardener to supply vegetables and fruit, and great as has been the progress of those grown under glass, the crowning-point of modern gardening is most certainly shown in the rise and progress of flower culture for the market. There can be no comparison made between 1837 and 1897 in this branch of market work. The few loads of potted plants and bunches of flowers only obtainable at Covent Garden Centre Row have been changed into the unique and magnificent spectacle presented by the early Covent Garden flower market of to-day. Nothing so much marks the advance of our working and middle classes in material progress, in improved taste and refinement, as their increased outlay upon flowers. At all seasons and under all conditions of life, from the sick-room in a London lodging or the ward of a public hospital, up through all times of joy and sorrow, to the highest function of society (the Drawing-room), we find them shedding their joyous light and delicious perfume, Nature's most charming productions.

In the matter of flower production supply and demand have, indeed, acted and re-acted the one upon the other. The more that the popular taste for flowers increased, the greater were the efforts made to put attractive flowers on the market; and the larger the supply of charming blooms at a moderate price, the more willing

were the people to buy. In this way a business that was of small proportions even thirty years ago has attained to very considerable magnitude. It is no longer a question of cultivating for sale a comparatively few flowers in market-gardens on the immediate outskirts of large towns, to supplement the receipts from cabbages and cauliflowers. This is still extensively done, of course; but what one finds, in addition, is that flower production is being carried on as a separate business in certain districts, where the output is often really prodigious. Particular flowers, or even special varieties thereof, are grown by the field, and, in place of acres of yellow corn, swaying with the wind, one now sees acres and acres of beautiful bloom. One grower I have met has on his flower farm a field of 16 acres which he devotes exclusively to just one particular kind of daffodil; and a single wholesale dealer, I may add, takes his entire supply. Chrysanthemums, again, are sown by the acre. At Worthing I saw in one nursery garden a collection of 190,000 chrysanthemums which had been transferred to flowerpots, and were awaiting removal to the glass-houses at the end of the fruit season; and elsewhere I have seen an acre of thickly-planted chrysanthemums, in full bloom, all growing under cover, while they still remained in the ground. Then, I have heard of fields of 120,000 rose-trees, or of 10,000 clumps of lilies of the valley; of 10-acre lots of violets, 7-acre lots of dahlias, 5-acre lots of peonies, 4-acre lots of cornflowers, and so on, almost *ad infinitum*.

The growing of flowers in the open has been very largely supplemented of late years by the use of glass-houses, either as an adjunct to the production of fruit in the otherwise 'off season' (as indicated above), or as a distinctive branch of business. Still more remarkable phases, however, of the revolutionary changes which

have been brought about are those represented by the processes of forcing, and also retarding, flowers, bulbs, plants, and vegetables, so that their vital forces may be either hastened or held in suspense, as it were, just as may suit the convenience of the grower and the exigencies of the market. The forcing is done, not merely by the ordinary use of heat in glass-houses, but by the application of anæsthetics. It was Dr. Johannsen, professor at the Danish High School of Agriculture, who, as the result of researches begun by him in 1890, first discovered the service that ether might render in the forcing of plants. I will not attempt to enter upon any scientific exposition in regard to this curious process, but, in effect, the theory, as I understand it, is: That plants require a certain period of 'sleep'; that the application of anæsthetics enables them to get through that period sooner than they would otherwise do; and that, when it is over, they develop and perfect their vital forces much earlier, and at a greatly accelerated rate of progress. Certain it is that in Germany lilacs which had been first treated with ether were in full flower within eighteen days of their removal to the greenhouse, and a substantial business on these lines has been developed in Hamburg, whence the forced lilacs are now sent all over Germany. Under the alternative retarding process the plants or bulbs are placed in cool chambers, where the temperature is such as to keep them in an absolutely passive condition so long as they remain there, the further growth beginning again whenever, on their removal, the period of suspended animation is concluded. By one or the other process, therefore, time and season are practically annihilated, and lilacs or lilies can be put on the market any day of the year, as they are wanted, without regard for that now antiquated work of reference—the almanac.

Looking at flower production from a strictly commercial standpoint, I have seen it stated that the growers along the Riviera send to Paris alone flowers of the value of £400,000 the year, while their total output is estimated to bring in from £800,000 to £1,000,000. These figures are sufficiently suggestive of the possibilities of flower-growing, and, happily, as indicated by the facts already stated, our home growers are showing an increasing enterprise in following up the business here, instead of leaving the foreigner to have too much of his own way on our markets. The Scilly Isles, with their favourable climate, had the honour of first starting that enterprise on an extensive scale; and since Mr. T. Algernon Dorrien-Smith sent his first experimental consignment of spring flowers to Covent Garden, in 1865, the quantities have greatly increased. In 1885 they represented a total of 65 tons, and about 150,000 separate blooms would go to the ton. In 1898 the total was 296 tons; in 1900 it stood at 575 tons; and in 1902 it increased to 751 tons. Since then the amount of traffic has been almost stationary, for the total in 1904 (leaving out of account a temporary decline in 1903) was 767 tons, and that for 1905 was 763 tons. A record for any one day in the history of the Scilly flower traffic was attained on March 11, 1902, when 7,830 boxes of flowers, weighing 47 tons 15 cwt., were brought over to the mainland in two steamers. The largest number carried in one day during the season of 1905 was on March 9, when 6,478 boxes, weighing 32 tons 7 cwt., were handled.

The cultivation of flowers for the market enabled the Scillonians to recover from the period of depression which had come upon them. But they have shared the usual fate of pioneers in meeting with active opposition when they had once showed the way, and to-day the

tendency in the Scilly Islands is to increase the output of tomatoes (of which there were sent across 4,709 boxes, of about 14 pounds each, during 1905) rather than that of flowers. Vigorous rivals have established themselves on the mainland, and though the Scillies still have an advantage in regard both to early season and to quantities, the growers in Cornwall and Lincolnshire claim that they are producing better qualities, and that their flowers reach the market in better condition, because they undergo less handling. In Cornwall spring flowers have long been cultivated, and, although they are from ten to fourteen days later than those from Scilly, their production on commercial lines is receiving more and more attention. This is especially the case on the cliffs lying between Penzance and Land's End, where flower farms—with a certain amount of glass to hasten the earliest specimens—have been set up in the sheltered nooks and stretches on such a scale that one grower alone sends off 50 boxes a day for a period of three months. For six or seven weeks during the height of the season the consignments of spring flowers from Penzance amount to from 3 to 5 tons a day, the quantities thus handled being double what they were ten years ago. From Marazion Station during this same period of six or seven weeks the total consignments range from 1 to 3 tons a day, smaller quantities going throughout the summer and autumn months.

In Lincolnshire the business in cut flowers has been taken in hand very seriously indeed, and, though it is not being carried on throughout the county to anything like the same extent as the production of potatoes and fruit, it has already been developed much more extensively than is generally known. In and around Spalding, for example, there are now fully 300 acres

of land devoted to flowers and bulbs. The area so utilized in this one locality alone has doubled in five years, and quadrupled in ten. The business may, indeed, be regarded as the outcome of the last decade, and it has already gone so far that the consignments of flowers from Spalding during the season of 1905 represented a total of 400 tons. To-day the tendency is for the local growers to put up more and still more glass-houses, so that they may be better able to compete with those in the Scilly Isles, in Cornwall, and elsewhere. One grower in the Spalding district has over 100 acres under flowers; smaller men have, mostly, anything from ½ acre to 20 acres. But the acreage is constantly increasing, and the small man who has got brains, business instinct, and sufficient capital, shows a remarkable talent in the way of enlarging his holding in the course of a few years. Postmen, artisans, farm labourers, allotment holders, and others, all have their patches of flowers, and help to swell the bulk of the total consignments.

The heaviest despatches of flowers from Spalding in a single day—or, rather, in a single evening, for the railway part of the work is all done between 5 and 8.30 p.m.—have amounted to 16 tons. An average day in the busy season would yield 10 or 11 tons. These figures are suggestive of good business for the railways, but, in effect, they represent a good deal of work for the railway servants. An analysis of the business done in the way of flower traffic, on a day when the total handled was 12 tons 7 cwt., shows that this quantity was forwarded by 25 senders, in 120 different consignments, the number of 'packages' included therein, and requiring separate handling, being 787. Three or four of the growers forward large consignments, but the majority come under the definition

of 'small,' among them being individual cottagers sending to market a single box of flowers. The consignments go by passenger train, and once or twice in the season 'specials' are run to facilitate the traffic.

The figures here given refer to Spalding only; but in the 22 miles of country between Spalding and Terrington, 2 miles west of Lynn, there is, on the Midland and Great Northern Joint Railway, a group of villages which practically exist on the cultivation of flowers, combined with the production of fruit and potatoes. These places, with their respective populations, are: Moulton (2,017), Holbeach (5,032), Fleet (962), Gedney (1,925), Long Sutton (2,524), all situate in Lincolnshire, and Walpole (1,767) and Terrington (2,748) in Norfolk. In cut flowers alone, without reckoning the large quantities of fruit and potatoes handled, the traffic from this group of villages comes to 500 tons a year. Adding to this figure the 400 tons a year sent away from Spalding, we get a total of 900 tons of cut flowers a year now grown in just one section of the Eastern counties, or 140 tons more than the whole of the consignments from Scilly.

Colchester sends 100 tons of roses and lilies in a year to London and the North, the roses being grown in the open and the lilies under glass. Isleham, a Cambridgeshire village of 1,600 inhabitants, distributes 75 tons of cut flowers per annum in the same way; Cowbit, a Lincolnshire village of 571 inhabitants, does a trade in cut flowers to the extent of 26 tons a year, and smaller quantities go from Mildenhall, Suffolk (3,353); Magdalen Road, Norfolk; Dereham, Norfolk (5,545); March, Cambridge (7,565); Guyhirne, Cambridge (1,116); Wymondham, Norfolk (4,721); Ashwellthorpe, Norfolk; Smeeth Road, Norfolk, and other places in the Eastern counties.

At Biggleswade, and elsewhere in Bedfordshire, fields of flowers alternate with fields of vegetables, the varieties grown including narcissi, wall-flowers, corn-flowers, asters, stocks, pinks, sweet peas, chrysanthemums, and scores of others. From Biggleswade itself the local growers will send away about 1,000 boxes on exceptionally busy days in July, the average from June to September being 500 boxes a day. Each box contains about three dozen bunches, with twenty or so blooms (according to variety) in a bunch.

Coupled with the demand for cut flowers—which, as one authority has said, people to-day will buy 'almost before purchasing their daily bread'—there is the substantial trade in flowers in pots, though the tendency on the part of the growers is to favour the former rather than the latter, as involving less trouble. Count must be taken, too, of the business done in the sale of bedding-out plants for the gardens of those suburban villas which, with the extensions of our large towns, have increased so greatly in number of late years. These same gardens have likewise given a decided stimulus to the trade in seeds and also in foliage plants, the latter especially being in ever-increasing demand, independently altogether of the large market opened out for palms, ferns, crotons, etc.—the result of hot-house culture—for table or indoor decoration. Mr. Assbee told, also, in his paper of the trade which has sprung up in small boxes of mixed foliage plants in 'thumb' pots, saying that one firm alone he knew of sold 2,500,000 annually.

At Terrington I had the opportunity of seeing the 'bulb farm' of Mr. Frank Law, who occupies altogether 116 acres, of which from 30 to 40 are devoted to bulbous flowers, 20 to chrysanthemums, from 10 to 12 to herbaceous plants, roses, etc., 5 to peonies, and

so on, his aim being to produce for market a succession of flowers throughout the year, and not in the spring only.

Growers of tomatoes and cucumbers under glass at Norwich have their 5-acre fields of chrysanthemums, moving in the latter when the former are done with, and sending away such quantities that an average annual output for the season would be about 270 tons of flowers. Yarmouth and Gorleston produce about 180 tons of flowers a year. A considerable proportion of the traffic from these centres goes to Edinburgh, Glasgow, or towns in the North and the Midlands.

CHAPTER VII

BULBS

In the minds of the vast majority of English people bulbs are associated exclusively with Holland, for when the word 'bulbs' is heard or read one almost naturally expects that it should be preceded by 'Dutch.'

True it is that bulb-culture has attained in Holland to very substantial proportions indeed; and it may be of interest to my readers if I quote the following details respecting the Dutch industry from a statement drawn up by Dr. J. J. L. van Rijn (Agricultural Commissioner in this country for the Province of Friesland) on the occasion of a visit to Holland, in 1905, of representatives of the English agricultural press, organized by him. These details are the more noteworthy—from the point of view of what I shall have to say later on concerning agricultural organization—because of the evidence they afford of how well the Dutch growers work together for the promotion of their common interests.

At the end of the sixteenth century the culture of hyacinths and tulips was transferred from the Orient to West Europe, and soon afterwards these bulbous plants were cultivated in Holland on a large scale. . . . . The number of cultivators gradually increased, and the cultivation regularly extended itself in the whole district between Haarlem and Leyden.

About 1850 thirty export firms were established in Haarlem and environs. That number has now increased to 150. Besides these there are in the bulb trade 2,000 independent bulb-growers, who do not export, but regularly sell their bulbs to the exporting firms. The latter also cultivate on a large scale. The area used for bulb cultivation has, according to the last official statistics, a circumference of 7,400 acres in the provinces of North and South Holland, and is still extending annually.

In connection with the always growing demand for land of good quality, the prices of bulb land have risen enormously on this account. One acre of good bulb land in the centre of the bulb district sold at £300 or £335. The exports amount at present to nearly 10,700 tons annually, which means that the export has doubled during the last seven years.

Bulbs are being exported into nearly all countries and parts of the world. Almost 70 per cent. of the whole production is sent to England; the next best customers are America, Germany and Russia.

The success of the bulb culture in our country is mainly due to the extraordinary favourable condition of soil and climate.

The more the culture increased, the more the bulb-growers joined together and arranged their business. In 1860 the general society for the purpose of bulb cultivation was established, and has at present thirty local sections, with 2,000 members. It has its own newspaper, an exchange at Haarlem, and regularly holds exhibitions. Moreover, there are special societies for the purpose of looking after the interests of the exporters and the bulb-growers. The central exporters' society has a mutual cash and intelligence office under the management of a lawyer. This office is in possession of information about more than 20,000 foreign consumers of bulbs. There are also four chambers of labour in the bulb district, which corporate bodies mainly attend to the interests of labour.

Haarlem is the seat of all these societies, and that town can still be looked upon as the centre of the whole bulb trade.

The supremacy of Holland as a producer of bulbs is, however, being questioned by English growers, who are not only putting large supplies on the home market, but are even disposing of considerable quantities to the Dutch bulb-growers themselves. The Scilly Isles have worked up a substantial trade in bulbs to supplement their business in spring flowers, and West Cornwall is now doing the same. What proportion of the Scilly bulbs goes to Holland I cannot say, but one grower in West Cornwall told me he had himself executed orders

from Holland for 530,000 bulbs in the course of a season. These bulbs would be of either first or second size, and it is probable that a good many of them, after being planted in Holland for another season, would find their way back to England as 'Dutch bulbs.'

But the districts around Spalding and Wisbech are also producing largely for both the home and the Dutch markets. From Spalding, a few years ago, something like 100 tons of bulbs were sent by motor-waggon to Lynn, and thence by steamer to Holland. Even this quantity has been surpassed by the 150 tons consigned from Wisbech to Holland in a single season over the lines of the Midland and Great Northern Joint Railway—or 200 tons, if we add the 50 tons that went in the same season from the group of stations between Spalding and Lynn. From such figures as I have been able to obtain I should estimate the total consignments of bulbs from Wisbech alone to all destinations at 300 tons in a season, and this figure, I think, is more likely to be under than over the mark.

A Lincolnshire grower with whom I discussed the prospects of this increasing and already considerable industry in English-grown bulbs, expressed himself thus:

> If you compare Lincolnshire and Dutch bulbs, our own are incomparably first. The soil in Lincolnshire is better adapted than the soil in Holland to the growing of bulbous plants, especially daffodils and hyacinths. The bulk of the Dutch bulbs are large in size, it is true, but they are soft and unripened. They are what we call 'sappy.' Not being sufficiently ripened, they don't flower so well as the smaller and harder varieties produced in Lincolnshire. In Holland the bulbs are grown mostly in sand and cow manure, and practically in water; hence the softness of which I spoke. In Lincolnshire we have got the proper soil without an excess of water. The bulbs, growing in the autumn, winter, and spring, ripen off here in the summer, when there is moisture sufficient, but not too much. That is where the Lincolnshire bulbs get the advantage over the Dutch.

In fact, it comes to this: anything that Holland can grow Lincolnshire can grow, not only as well, but better—under suitable conditions. What I mean is that, while there are immense possibilities in the Lincolnshire soil, yet, if we are to have dear land, heavy rates and taxes, and labour which is not only dear but none too skilful, we shall not gain much from the advantages we ought to develop. England spends a large sum of money every year on foreign bulbs. Given the suitable conditions, we could grow for ourselves all we want, and the money kept at home would foster British industries.

It is just the same with flowers. We import fresh flowers of the value of a quarter of a million sterling each year. But it is a fallacy to suppose that these flowers can be produced only in France, in Jersey, or in the Scilly Isles. Here, again, the Lincolnshire soil is better adapted for the growing of flowers than is the soil in those other places. The advantage they have comes only from their earlier season. We could nullify that advantage by putting up glass-houses, which would place us on the same level in regard to season, and leave us with our better soil. But, when we think of erecting glass-houses, we have to bear in mind the existence of local authorities. In their anxiety to raise money, they watch us as a cat does a mouse, and the instant we make a move they are down upon us. To meet competitors on our own markets, we put up glass-houses which are merely shelters, protecting against the climate; but these houses are instantly taxed at such a figure that the benefits we hope to secure are in danger of being swallowed up, leaving us no better off than we were before.

While, therefore, the 'immense possibilities' I have told you of may still lie before us—and this notwithstanding the great progress Lincolnshire has made of late years—you will understand how a check is put at once upon any new development on which we might propose to embark. It is not a question whether, as patriotic Englishmen, we ought to pay heavy rates and taxes willingly for this purpose or that; but whether, from a purely commercial standpoint, the commodities we grow will bear the additional cost of production thus put upon them, and be in a position to hold their own on the market—by the time they get there—as against the commodities grown at less expense in other countries.

Another Fenland grower, who has 20 acres under bulb cultivation, said to me:

The Dutchmen have taken more trouble over bulb-growing in the past than we have. That is the whole secret of their success. In my opinion we can grow tulips and crocuses as well as they grow them in Holland, and daffodils decidedly better.

Dutch supremacy in bulb-production is also being challenged in Ireland. Some fifteen miles to the north-

east of Dublin the little fishing village of Rush stands in the midst of a wild and almost desolate sandy plateau, across which the wind sometimes sweeps with terrible violence, its force in no way checked by the few trees that alone break the vista of the landscape. A hopeless sort of spot it might appear to the casual observer to be, and a spot where even fishing does not thrive, owing, it is said, to the destructive influence of the steam trawlers.

But in the year 1895 it occurred to Mr. James Robertson, of the firm of Hogg and Robertson, seedsmen, etc., of St. Mary Street, Dublin, that Rush would be an especially suitable place in which to start some experiments in bulb-growing. The sandy, limestone soil that slopes down from the mountains to the seashore is suitable for root crops, and, although the rainfall at Rush is exceptionally low, there is an abundance of subsoil moisture, the water standing at only a few inches below the surface during the late autumn and winter. Early potatoes have, in fact, long been grown at Rush, and the natural capabilities of the soil have been increased by an abundant manuring, thanks to the ample supplies of seaweed.

These conditions seemed to Mr. Robertson to favour his proposed experiment, and he was the more disposed to make it, apart from purely commercial reasons, partly because he wanted to add, so far as he could, to the minor industries of distressful Ireland, and partly because he also was inspired by the wish to 'keep at home money which would otherwise go to the foreigner.' So, acquiring some of the most suitable land, he started the enterprise, overcoming the strong-wind difficulty by constructing earth embankments and low mud walls, and also planting hedges of oval-leaved privet and other hardy shrubs between the

different beds. Since then about 40 acres have been devoted to the production of daffodil, tulip, hyacinth, and other bulbs, and the firm now report:

The result has surpassed our expectation. All bulbs grown in Holland thrive splendidly at Rush, and in appearance and size are equal to the best the Dutch produce. Our exhibits of the flowers at the spring shows in London, Birmingham, Manchester and elsewhere during the last three seasons have been awarded the highest honours they could attain.

It might be not unfairly claimed that this industry presents an opportunity to the growers of spring flowers who take an interest in the future prosperity of this part of the kingdom—and their number is legion—to help, it may be in a small way, in the regeneration of Ireland.

We base our claim for recognition, however, on the sounder commercial basis that our bulbs are equal, if not superior, to those of the foreigners, and are sold at prices which are as low as theirs.

The favourable report presented by the growers is confirmed in other directions. A writer in the *Garden*, for instance, says of the Rush enterprise:

Though I have seen tulips in Holland and in England, I never saw them happier than upon this wind-swept shore. . . . I never, even in Holland, saw foliage so clean, strong, and healthy, nor flowers so fresh and splendid in form and colour. Now that the fact is accomplished, one wonders why bulb-culture was not tried here long ago.

The commercial possibilities of bulb-production were thus dealt with in an article on the Rush experiments published in the *Irish Times* of October 7, 1901:

The enormous quantities and the high values of choice bulbs that may be grown on an acre of good and suitable land are astonishing, and somewhat of a revelation to those not well versed in intensive land-culture. Thus an imperial acre holds 250,906 roots or bulbs at 5 inches apart. In order to facilitate the working, etc., paths or alleys are, of course, necessary, as well as the bulbs, and so we will say 200,000 bulbs go to the acre. It is a common—or rather let us say an abundant—flower root that is not worth a penny, but many of the choicest kinds, as grown at Rush, are worth from one shilling to as much as five pounds a root, and if you want to grow some of the finest of Mr. Engleheart's new

Photo Chancellor, Dublin.

A BED OF ST. BRIGID ANEMONES AT ROBERTSON'S BULB FARM, RUSH, CO. DUBLIN.

seedling daffodils much more must be paid. You can have, for example, a bulb of a variety called Albatross, with its wing-spread petals of snowy whiteness, for four pounds; and Golden Bell, a giant trumpet daffodil, for a guinea. A rich and stately golden trumpet, sent out last year by Mr. Kendal, will cost you five or six guineas a root; and Monarch, another fine sort, is priced at twelve guineas, as is also the rare and beautiful Eucharis lily-like flower called Maggie May; Una, an ivory white (without the lion), may be had at two guineas, and a root of the big and beautiful Weardale Perfection is worth nine guineas. Then, even if you purchase all these, you are, so to speak, only in the second row, for there are narcissi both rich and rare, such as Ellen Willmott, Peter Barr, Robert Berkeley, Earl Russell, Countess Russell, Lady Margaret Boscawen, and many others at present that no money can buy, so proud of them are their raisers or owners. It is startling to think what an acre, or even a pole or perch, of such kinds as Maggie May, Ellen Willmott, or Peter Barr would be worth to a successful cultivator. 'Ah, sure,' said a man of the sea to me one fine day at Rush, 'these roots beat potato-growing; they beat creation entirely; and it's rowlin' in money you'd hev to be to touch 'em at all at all, they're so dear to buy.' Unconsciously, perhaps, the nail had been struck on the head, and the reason there are not more bulb-growers is twofold at least. Firstly, the best and most suitable land is limited in area and difficult to secure, and then the best and choicest stock bulbs are 'so dear to buy.' In a word, although bulb-growing is undoubtedly one of the most pleasant and profitable of all soil or land industries, it, at the same time, demands capital, and a high order of systematic, industrial, and commercial intelligence. It is not merely digging and planting, as in the case of potatoes, for food.

As regards the closing remarks in this extract, I am inclined to think further experience in Ireland will show that, while the main industry must remain in the hands of large growers possessed of capital, there will be good openings for even very small growers in the production of the less costly varieties, which they can sell to the large men, instead of trying to market for themselves, thus supplementing their earnings in other directions without running any personal risk, and at the same time enabling the large men to work up a bigger trade by collecting supplies from a variety of other sources. A certain amount of instruction might have to be given, and guidance exercised, in the production of the right

sorts, under proper conditions; but this should present no great difficulty. These are the lines that have been acted upon with great success around Wisbech, and there is no reason why the same plan could not be followed in Ireland, to the benefit alike of the peasantry and of the large growers themselves. The latter are already finding employment for a greater number of people in their bulb farms, but it would be an excellent thing if, in addition, they could enlist the services of cottagers as assistant-growers.

Should this be done, then the very successful experiments at Rush might be only the beginning of a new, important, and wide-spread industry in Ireland. As still further showing the opportunities opening out to those willing to take advantage of them, I would add the following to the extract I have already given from the article in the *Irish Times*:

> The soils of Ireland are rich, light, moist and easily worked, and all around the coast there are choice plots and sheltered valleys of alluvium that are especially suitable to the healthy growth and profitable increase of manyrare and valuable bulbous plants. The climate, again, fights for us in the matter. It is moist and genial, equable and mild, and especially so from December until July, when bulbs are rooting and flowering and preparing their crowns and off-sets for another year.
>
> In Holland, bulb-culture has been an hereditary pursuit or calling for the past three centuries at least, and it is a curious historical coincidence that bulb-growing and printing should both have been started in Holland at about the same time. The art or craft of bulb-culture, with all its technical details, has been a growth, and the bulb-growing son has succeeded the bulb-growing father from generation to generation, and, like viticulture in France, or the pruning of old olive-trees in Lombardy, the mysteries and methods are, so to speak, deep-seated in both heart and brain, or, as one might well say they are, 'in the blood.' Now, as is the case with all new cultures or fresh experiments, it will take some time to get bulb-growing 'into the blood' generally of the average or ordinary Irish farmer or market-gardener; still in some favourable cases it is now in progress, and even in rare cases is actually being done. We may safely assert that no finer or better bulbs of narcissus, daffodils, tulips, snowdrops, crocus,

Photo Chancellor, Dublin.

TULIP MACROSPILA AT RUSH, CO. DUBLIN.

iris, or even of gladiolus, and Holland's own speciality, the hyacinth, are produced anywhere than are the best of those grown on Irish soil. So far we have not grown the quantities grown by the Dutch in Holland, or even as many as are now being grown in Surrey, in Cornwall, and the Scilly Islands, or in Lincolnshire, where soil and climate resemble those of Holland in many ways. Still, the quality and healthy character of the best of Irish-grown bulbs is past all denial.

CHAPTER VIII

PRODUCTION UNDER GLASS

A RESORT to the growing of fruit, flowers, and early vegetables under glass is one of the chief measures of defence adopted by the British cultivator in meeting foreign competition. It enables him (as stated by the Lincolnshire grower referred to in the last chapter) to overcome somewhat the disadvantages of his climate, and place himself more on a level of equality with producers in lands which have earlier seasons or more genial skies, so that he himself can start sooner, or keep on longer, and have opportunities which he could not possibly hope for if he depended entirely on what he could grow in the open.

So well has this position been understood that the advance made in production under glass during the last quarter of a century, and especially during the last decade, has not been surpassed by the progress in any other branch of industry connected with the land, and already there is an outcry in various quarters of over-production. Whether or not the fault, if any, lies less in over-production than in want of better distribution is a matter on which opinions might differ; but the fact remains that at present there is no evidence of a check being given to the continued growth of a very big business, thanks to which, combined with the changed

economic conditions already dealt with, the average housewife can now, for instance, supplement the Sunday dessert with English hot-house grapes, at from 6d. to a 1s. or 1s. 6d. a pound, which, not so many years ago, would have cost from 5s. to 10s., and been found only on the rich man's table.

It is in the south-east corner of Hertfordshire, on the northern borders of the Metropolis, in the Valley of the Thames, and along the Sussex coast, that the expansion of culture under glass has been most in evidence in England. Mr. Bear, in the *Journal of the Royal Agricultural Society*, tells how thirty years ago only one nurseryman at Cheshunt, Herts, had a hot-house, whereas there are now at least 125 acres covered with glass in that parish alone. At Ponders End, near to Cheshunt, the increase in the same period has been a thousandfold. At Finchley twenty-five years ago there was 'no glass worth mentioning.' To-day there is one nurseryman, without mentioning others, who alone has 19½ acres, though this would make quite a small show alongside the 130 acres of glass with which a firm elsewhere are credited. In the Thames Valley the comparatively few ventures of a quarter of a century ago have expanded into a vast enterprise. There has been a remarkable development also at Mitcham, Swanley, Erith, Bexley Heath, Chelmsford, and other parts of the country.

Passengers by the Great Eastern Railway to Southend may have noticed that there is a station at Rayleigh, an Essex village of 1,773 inhabitants; but very few of them, probably, know that from this one village there have been despatched in the course of a year 334 tons of cucumbers, 55 tons of tomatoes, and 78 tons of fruit, all grown under glass, in addition to a small tonnage of cut flowers and mushrooms, grown in

the open. Most of these consignments come to London. Ashwellthorpe, a Norfolk village with a population of just over 700, consigns in a year, to towns in the North and the Midlands, 13 tons of tomatoes and cucumbers, supplemented by smaller lots of fruit and cut flowers.

The general progress of the industry is well indicated by the following extract from the 'Fruit-Growers' Year-Book' for 1905:

> At the present time there are some 1,500 acres in England covered over with glass, which, if stretched in one straight line, would form a glass hot-house a good deal longer than the length of England, and about 10 feet in width. Fifty years ago the acreage covered by glass-houses did not exceed much more than a couple of hundred. From the 1,500 acres of glass-houses are produced annually about 6,000 tons of tomatoes, 2,000 tons of peaches, and 1,500 tons of grapes.

The borough of Worthing offers the best opportunities for a study of large-scale cultivation under glass, as carried on in a particular district; for there not only are definite figures available in respect to the houses, but the fact that all the produce is consigned by rail to the London or other markets allows of a better idea being formed of the actual proportions of the output than is the case with those districts nearer London from which so much would be sent to market by road.

Climatic conditions along the Sussex coast are specially favourable to fruit, vegetable, and flower culture under glass, and since the pioneer effort in this direction at Worthing a quarter of a century ago the enterprise has stretched out in each direction, until it now embraces a coast-line some ten miles in extent. But Worthing remains the capital of the Sussex glass industry. The number of glass-houses within the limits of that borough is now 1,220. Placed end to end these houses would give a total length of over 32½ miles. The largest is 861 feet long and 20

feet wide. The total superficial area of the glass used in roof construction for all the houses in the borough is over 3,500,000 feet. The total length of the piping used for heating purposes would exceed 136 miles. Some of the growers have artesian wells in their own grounds, and small windmills or steam-engines to pump the water they want in their business; but the majority are supplied by the Worthing Corporation (at a sliding charge which varies from 6d. to 1s. per 1,000 gallons), and the quantity annually registered by the water-meters thus used is 18,000,000 gallons. The local authorities estimate the aggregate cost of erecting the glass-houses (including sites), at £165,000, and they put the gross estimated annual rental value at £13,727, and the rateable value at £8,259.

The number of master growers in Worthing is eighty-two. Numerically speaking, most of these are 'small' men, of whom a considerable proportion were once labourers, or little better, and have 'worked their way up,' more or less. The 'large' growers do not exceed a dozen, but of these one alone occupies an eighth of all the glass in the borough. The question whether the small or the large growers have the better chance at Worthing, under the present conditions of low prices, is one upon which opinions differ. The large men have the advantage of capital and good business connections, but a hard-working small man, with a few hundred pounds and two or three sons as industrious as himself, will often obtain better proportionate results, because he and his family helpers will work for longer hours, and do more in those hours than the large grower can hope for from his hired workers. So the all-important item of the cost of production is relatively less in the one case than in the other.

As confirming this view—which I gained on the spot

—I see that Mr. W. Sams, a Worthing grower who gave evidence before the Departmental Committee on Fruit-Culture, said in his statement: 'I am a firm believer that a working man by himself and his son, perhaps, or one hand, will hold his own, when I and others, who have larger premises, are out of it.' Asked if that applied to glass-houses, Mr. Sams replied: 'Yes. . . . A working man will be able to live and place himself in a better position than if he was a day-labourer or working for a master—he will not mind what hours he puts in at the work; but I do not believe it will pay a man with capital, certainly at the present moment, to go into the business,'—especially, as Mr. Sams had previously explained, in face of 'free imports.'

Such is the importance of the Sussex coast industry in fruit, vegetables, and flowers, that the London, Brighton, and South-Coast Railway Company now run what is practically a special train in the interests of the traffic (though passengers may travel by it as well) every week-day, except Saturday, from various stations, including Angmering, Goring, West Worthing, Worthing, and Lancing, to London Bridge. Waggons loaded up with the produce are coupled on at the various stations, and on the busiest days—Mondays, Wednesdays, and Fridays—in the summer months there may be as many as ten or a dozen waggon-loads, representing from 2,500 to 4,000 or more packages (and one package often consists of four boxes tied together), or in actual weight from 25 to 40 tons of consignments.

The largest proportion goes from Worthing. Little more than twenty years ago the consignments of fruit, etc., from that station represented about 100 packages on a busy day. It is now no unusual occurrence for 2,500 packages to be sent in one day from Worthing.

UNLOADING THE WORTHING SPECIAL (FRUIT, FLOWERS, AND VEGETABLES) AT LONDON BRIDGE STATION, LONDON, BRIGHTON, AND SOUTH COAST RAILWAY.

Cucumbers are despatched thence in considerable quantities all the year round, but in the months of March, April, and May they represent, on Mondays, Wednesdays, and Fridays, a total weight of about 12 tons a day. One firm alone will send 6 tons and another 2 tons three times a week. For grapes, which are also going from Worthing more or less throughout the year, the daily average of consignments works out at about 2⅓ tons. Of tomatoes there would be an average of 1½ tons each day. Early beans, peas, and strawberries go in smaller quantities, and are of less importance, though they may supplement somewhat the earnings of the growers.

Some years ago, at Christmas-time, one Worthing grower sold at no less a price than 3s. 6d. an ounce, or 56s. per pound, some strawberries he had forced in a cucumber house, though the same number of plants, he assured me, would have produced a better profit if they had been allowed to yield their fruit in the open in the normal course of the seasons. The purchasers of flavourless Christmas strawberries at 56s. per pound are, it seems, wealthy residents of Brighton, who will stop at no expense, provided they can put on their tables something that no one else is likely to have.

The arrangements made by the London, Brighton, and South Coast Railway Company for handling the traffic in London afford an object-lesson in good organization. The fruit train starts from Chichester at 10.48 a.m., couples on fruit waggons at Angmering at 11.45; Goring, 11.50; West Worthing, 12.15 p.m.; Worthing, 12.35; and Lancing, 12.39; and is due to reach London Bridge about 2.30. While the train is performing this journey there will have been sent by telegraph to London Bridge from each station forwarding fruit, etc., a list of the dealers to whom the consign-

ments are being forwarded, and the number of packages each dealer is to receive from such station. These telegrams are collated, and the railway officials learn from them the exact number of packages the various dealers at Covent Garden, Spitalfields, and the Borough Market are to receive by the incoming train. The railway company's servants can thus at once complete the arrangements for delivery, which is included in the rates charged. They know, approximately, how many vans or carts (generally from fifteen to twenty-five) will be required, and, if there should not be enough of the company's own vehicles available, instructions are sent over the telephone to a contractor to supply the additional number wanted. Arrangements are also made with a view to having sufficient men on duty to unload the railway-waggons, load up the delivery-vans, and despatch these to their destination, within from forty minutes to (at the outside) one hour of the arrival of the train at London Bridge. This means that, in the proportion of two men for each 300 packages, from fifteen to thirty dock labourers are engaged by the railway company each day, at a remuneration of sixpence per hour (with a minimum of two hours' pay), to assist in the work on this one train. Meanwhile, also, there will have been hung on the tail-end of each van (drawn up in position against the other side of the platform to which the fruit train will come) a blackboard, giving, written in chalk, the names of the particular dealers whose consignments are to be loaded into the said van.

No sooner, therefore, has the 'fruit special' pulled up than the operation of unloading is begun at each end of the train. The doors of a truck being opened, the railway-men and the labourers assisting them lift out the packages, and, reading the names thereon (for it is an essential part of the scheme that each package

shall be separately labelled), take them to the delivery-vans according to the names on the blackboards. The sight of a sturdy dock labourer, capable of big things in the way of heavy loads, gravely walking along the platform carrying in each hand a round-handled basket of 'Grapes—with care,' that would hardly test the physical powers of a child, is not without its humorous side. In any case, one sees that the railway people do take the desired 'care,' and the impression I myself got, as I watched the whole operation, was confirmed by the representative of one of the wholesale agents, who, before it was placed in the delivery-van, opened and examined each of the 600 or so packages of grapes consigned to his firm on that particular day, and assured me that 'for weeks together he found no cause for complaint as to the condition of the fruit on arrival.'

In order to economize time, the transfer from train to van is begun at once, and continued without any delay in checking the consignments by the way-bills. These are taken direct to an adjoining office, where a staff of clerks at once starts to make up the necessary papers for the drivers, completing this part of the work by the time the delivery-vans are ready. Well within an hour, therefore, of the arrival of the 'fruit special,' on the day of my visit to the Brighton Company's London Bridge station, I saw the procession of vans leave to deliver the contents of that 'special' to the agents in the different markets. In this way, fruit, etc., gathered fresh in the hot-houses along the Sussex coast in the morning would be delivered to the London agents between four and five o'clock the same afternoon, ready for immediate sale, or for further consignment to Dublin or Glasgow, where it should arrive the following morning.

It is, therefore, essentially a good service which the

Sussex fruit-growers obtain in return for the rates they pay. There is no combination among the fruit-growers of Worthing and the neighbourhood, each of whom consigns independently to the salesman he favours. Although, therefore, the total weight of the produce carried per train is considerable, the large number of separate consignments, sent by different consigners to thirty or forty individual consignees, involves much handling and much clerical work, while the nature both of the commodity and of the services rendered is held to justify the scale of railway rates charged. These rates certainly constitute a grievance with some of the Worthing growers, who argue that, when market prices fall (partly because of either excessive production or defective marketing, but mainly because of heavy foreign imports), the railway companies should reduce their charges proportionately, without regard, as it would seem, to the question whether or not they would still get a reasonable return from the traffic carried on under the exceptional conditions here indicated.

A more legitimate grievance is the burden of local rates, the average assessment for which on glass-houses in the borough of Worthing works out at £117 per acre. Mr. Sams was especially forcible on this point in the evidence he gave before the Departmental Committee. 'Every pound of fruit,' he said, 'that I send into market is weighted with a certain amount of rates and taxes. Every pound I send to London bears a proportion of rates and taxes. Of course, it is infinitesimal on a pound, but there it is, and the foreigner sends his produce here without any of those burdens.'

Fruit and vegetable production under glass is generally supplemented at Worthing, as elsewhere, by the cultivation of chrysanthemums, which are first grown in the open, and brought into the glass-houses when the grapes

Photo J. White and Son.

FRUIT-GROWING UNDER GLASS: A VINERY AT MR. G. BULLEN'S HANGLETON NURSERIES, GORING, SUSSEX.

have been cut. There is, it seems, no great profit from this branch of the business, but it helps both to keep the staff employed during the winter and to cover current expenses.

By way of further illustrating the proportions to which cultivation under glass has attained of late years, I append the following particulars respecting the value of the importations into England from the Channel Islands of grapes and tomatoes—mostly grown under glass, and mostly coming from Guernsey, which is rapidly being transformed into an island of glass-houses, Jersey occupying herself mainly with new potatoes:

	1900.	1901.	1902.	1903.	1904.
	£	£	£	£	£
Grapes ...	104,304	80,247	91,362	95,643	156,312
Tomatoes ...	287,147	266,198	214,379	297,216	350,717

Of fresh flowers from the Channel Islands, and again mainly from Guernsey, the values for the same series of years were: 1900, £68,743; 1901, £78,495; 1902, £100,142; 1903, £81,886; 1904, £91,613. The total value of the grapes, tomatoes, and fresh flowers sent to England from the Channel Islands in 1904 (independently of other commodities) thus amounted to over £598,000.

It is estimated that nine-tenths of the population of Guernsey are interested in glass culture, and that the glass-houses on the island would, if they could all be brought together, cover just about one square mile of land.

CHAPTER IX

MARKET-GARDENING.

To give a really adequate idea of the extent to which market-gardening is followed in the United Kingdom is practically impossible. As already indicated, the returns of 'agricultural holdings' take no notice of any that are under one acre in size.* And the sum total of holdings and diminutive market-gardens which are under that limit, yet, nevertheless, contribute substantially—in the aggregate—to the supplies put on the market, must be very considerable. But even the most complete of returns as to acreage, showing increase in one period compared with another, would still be inadequate, inasmuch as, although in certain districts the actual area under market-gardens may not have increased, the quantities produced, under the system of intensive culture—and especially with the expansion of glass-houses—will be very considerably greater, on the same amount of land, contrasted with the conditions of ten or twenty years ago.

If, again, one tries to get statistics as to production, a fresh set of difficulties present themselves. In the first place, the largest of market-gardeners do not care

* In effect, if 100 acres of farm-land be cut up into allotments of less than one acre each, for the purposes of market-gardens, those 100 acres would appear in the official statistics as 'gone out of cultivation.'

to fill up official returns specifying the exact amount of each particular crop they grow. Then, the railway returns as to traffic carried are only of service in the case of market-garden areas which are more than fifteen or twenty miles away from a large centre of population, inasmuch as within that distance the produce would generally be taken to market by road. Nor would the market returns, as a rule, give even an approximate idea of the quantities handled, no really strict classification being observed in the case of those on which tolls are taken, while there is no account at all in the case of market-stands that are rented by growers themselves; and at Covent Garden, for example, half the outer fringe is divided into stands of this type.

In the circumstances, all that I can attempt to do in the way of giving some idea, however incomplete, of the importance attained by the market-gardening industry in this country is to offer a few examples of typical districts, and to supplement them in the following chapter by such information as I have been able to collect with regard to the production of some of the more important crops.

West Middlesex ranks as one of the most important of the various market-gardening areas within a twenty-mile radius of London. Beginning even as near to the Metropolis as Chiswick and Kew, it extends through Brentford and Isleworth to (among other places) Hounslow, Witton, Feltham, Cranford, Hatton, Heston, Southall, West Drayton and Yiewsley, Harlington, Hayes, Harmondsworth, and Longford. The greater part of this very considerable area is practically devoted to the growing of vegetables, fruit, and flowers, for the London markets. The farms are mostly from 50 to 100 acres in size, but 300-acre farms are not

uncommon, while there are some larger still in dimensions, though not necessarily more productive in output. The total acreage of cultivated land has probably not increased, for, though it may have extended westward, it has been curtailed on the east, owing to the spreading out of the London suburbs. The combination, again, of increasing land-values in the neighbourhood of great cities, and of the facilities offered for rail transport, leads to the expansion of market-gardening in country rather than in suburban districts. But what is happening in West Middlesex, as elsewhere, is that considerable stretches of land formerly devoted to the growing of corn have been transformed in recent years into market-gardens; while the remarks already made as to increased production per acre, resulting from intensive culture, apply with especial force to West Middlesex, where this principle has been widely acted upon, with striking results. With the greater resort to glass the tendency, too, is still increasing.

The produce grown comprises 'top' fruit—apples, pears, plums, damsons; 'soft' fruit—strawberries, raspberries, gooseberries, currants; root crops—potatoes, beet, parsnips, carrots; and every possible kind of vegetables. Strawberries, for which urgent delivery is naturally desired, may go by rail, but otherwise practically all that is grown in West Middlesex within twenty miles of Covent Garden is sent to London by road, either by horse and van or by motor, four or five growers having lately resorted to the latter mode of conveyance. It is claimed for road transport that, whether it costs the same as rail transport or not, there is less handling involved than in the transfer to and from the railway-waggons; and this advantage inevitably turns the scale in favour of road transport where—other things being equal—the growing area is

within cartage distance. From West Middlesex individual growers send off any number of loads, from one to seventeen, each night.

So it is that residents on the highways and main thoroughfares leading from West Middlesex into London have to sleep as best they can to the constant rumbling of long processions of market-garden carts, which, leaving the farms in the evening, do their twelve, fifteen, or twenty mile journey, and arrive at the London markets with their loads any time between midnight and three o'clock in the morning. The drivers may sleep comfortably *en route*, but that is immaterial provided they do not fall off, for the horses know every inch of the way, and require no guidance.

The attempt to substitute motor traction for horses and vans is still in the experimental stage, and, unfortunately for the growers concerned, it is hampered by the attitude of the local authorities. Water-troughs have been provided at various points along the main roads for the use of the horses; but, though the growers who employ steam-motors have offered to pay whatever may be asked of them for water from the taps at those troughs, for use in the motors, the local authorities concerned have refused permission. Consequently the motors have to start on the journey to London with a ton of water, in addition to the load of vegetables. It is also open to any aspiring young constable along the line of route, anxious to secure the favourable notice of his superiors, to stop the driver, take his name and number, and cause him to be prosecuted, to lose a day (his employer as well, it may be), and to pay a fine, for some purely technical offence under motor-waggon law. Drawbacks of this kind are locally regarded as examples of the sort of help that agriculture in Great Britain can expect to get from the 'powers that be.'

The amount of capital involved in this West Middlesex market-garden enterprise is beyond my power of calculation; but a competent authority estimates the amount paid in wages in the district at no less than £100,000 a year. One of the most striking factors in the situation is, indeed, the much greater proportion of labour employed on a market-garden, worked on the principles of intensive culture, than would be wanted on the same amount of land when used for ordinary agricultural crops. There are, for instance, vegetable farms in West Middlesex employing from 60 to 120 hands, where, under corn production, a score or so would suffice. A West Middlesex grower with 300 acres may employ thereon any number of men, women, and boys, up to 150.

Here the great difficulty that arises is in respect to housing. Not only does the cost of building become unduly heavy, if all the requirements of local authorities are to be met, but those same authorities seem to consider that market-gardening is so highly prosperous a business that it can stand anything in the way of local taxation. Thus the cabbages and the cauliflowers grown in West Middlesex will have to go to Covent Garden handicapped with their proportionate share of the cost of maintaining so many inmates in a local Palace for Lunatics which is likely to involve an expenditure of some half-million of money; while, in the matter of housing, the rent of a cottage which might otherwise let in the district at 4s. 6d. a week has to be raised to 6s. a week on account of the rates. In the circumstances, cottages can hardly be built to pay, as a business proposition; and those that the growers are constructing are 'tied' houses, for the accommodation exclusively of their own workpeople. Such rent as can be charged for them only just covers expenses, and for this reason

no more are built than are really required; while, if a man leaves a grower's employ, he has to quit the cottage as well, to make way for the man who succeeds him. It is a pernicious system, but the responsibility for it should not be thrown on the market-gardeners.

In visiting West Middlesex to see the district for myself, I asked one of the growers I met—Mr. Robbins, of the firm of Wild and Robbins, Sipson, West Drayton—what his views were on the subject of foreign competition, and his remarks thereon struck me as so practical that I venture to reproduce them. He said:

I do not think we should be able to dispose of anything like the same quantity of produce we sell under present conditions if it were not for the importations from other countries. We are dependent for distribution on the retail dealers, but the retail dealers require to have foreign produce to keep their shops going during parts of the year when British growers are sending to market either nothing at all or very little. Forty or fifty years ago these retail dealers were comparatively few in number, and in the month of March, for instance, they had very little to show in their windows. To-day the number of retailers has enormously increased—as you see, no matter into what town you go—and there is always plenty of attractive produce for them in the way of stock. This is due in no small degree to the foreigner, without whom, in fact, the retailer could not live. Stop the imports of foreign fruit and vegetables, and within twelve months 75 per cent. of the fruiterers and greengrocers in the country would be bankrupt.

The foreign supplies have the further advantage of getting people into the habit of eating fruit and vegetables all the year round, and we have the benefit of this as soon as our own supplies are ready. In the summer months, of course, when we are producing in abundance, we feel that we would rather do without the foreigner. But there, again, if the foreign imports were not forthcoming, to keep prices at a reasonable level, there would be attempts to corner the market, and the rise in prices might choke the demand, in which case we should be no better off than we were before.

In Bedfordshire and Huntingdonshire there is a stretch of country, about fifteen miles long and four or five broad, with Biggleswade and Sandy as centre

points, which is almost entirely devoted to market-gardening. The area has greatly increased—the output is said to have quadrupled—during the last twenty years, owing in part, no doubt, to the fact that, as big towns expand their areas, the market-gardening once followed on their borders is pushed still further afield; but still more, probably, to the increased demand for vegetables. Large farms have been cut up into small ones, and entire villages converted into market-gardens, ranging in size from 2 or 3 acres up to 200, the majority, perhaps, being from 10 to 15 acres each. Biggleswade has developed into a town with a population of over 5,000, and Sandy has one of about 3,000; but it is on market-gardening that the inhabitants of each place are almost entirely dependent, the other local industries being altogether insignificant. Nor has the expansion come to an end, for within the last three or four years about 1,500 acres of grazing land at Willington, near Bedford, formerly belonging to the Duke of Bedford, have been taken over by a syndicate, and transformed into small holdings for market-gardeners. The London and North-Western Railway Company built a station in order to open up the district, and already the local traffic in vegetables, tomatoes, etc., is so substantial that the station has had to be enlarged.

From Biggleswade the produce is largely sent to London, whereas that from Sandy goes principally to Northern and Scottish markets. But in each case the consignments represent very considerable quantities. Included in those sent from Biggleswade are vegetable-marrows, cucumbers, beet, brussels sprouts, carrots, parsnips, onions, radishes, sea-kale, cauliflowers, cabbages, parsley, leeks, asparagus, red cabbage, potatoes, spinach, savoys, broccoli, Scotch kale, 'ragged jack,'

turnips, lettuce, kidney-beans, and field rhubarb. Of vegetable-marrows the quantity produced in the summer of 1905 was so great that, as one grower at Biggleswade assured me, 'thousands of tons were left to rot on the fields because marrows had become a glut on the market, and it did not pay to gather them. I myself,' added my informant, 'had only two pickings, and I left about 200 tons of marrows where they had grown. Any number could have been bought for 2d. the dozen, or 5s. the ton (representing fifty dozen), even if they could not have been had for the asking.' Carrots are grown around Biggleswade on hundreds of acres, and brussels sprouts on thousands. There are fields of kidney-beans, of red cabbage, of parsley, of parsnips, and of other things besides. Onions, too, are still grown in fields, though here there has been a great falling off owing to foreign competition.

At one time about 2,000 acres in the district in question were devoted to onions, and some of the growers made at the rate of £100 per acre, while employment was found for a large number of people in peeling onions used for pickling. One firm alone employed between 300 and 400 women at this work for a period of three months in the year. But the English growers can now hardly compete with their Dutch rivals, who send to the Stratford market onions that are sold at 3s. 3d. per cwt., as against the 10s. or 15s. per cwt. which represented the old English rate. So the onion-growing industry around Biggleswade has declined to about one-tenth what it formerly was, and most of the people to whom, directly or indirectly, it gave employment have had to find something else to do. Like conditions apply to red cabbage and cauliflowers grown for pickling, for of these products also foreign competition has reduced the output

around Biggleswade to about one-tenth of its former proportions.*

But other classes of vegetables have come more to the front—the growing of brussels sprouts, for example, has developed into a very large industry during the last seven or eight years—and the average consignments of market-garden produce from Biggleswade alone represent a total of 50 railway-waggons a day, taking all the year through. In the month of July as many as 100 waggon-loads have been sent off in a single day. In the busy season a special 'vegetable train' is started from Biggleswade for London four days in the week. According to season, there might be forwarded on busy days from 20 to 24 tons of lettuce, 40 tons of brussels sprouts, 120 tons of potatoes, 40 tons of spring cabbage, 36 tons of cauliflowers, 60 tons of carrots, 45 tons of vegetable-marrows, 60 tons of parsnips, and so on.

Sandy is but three miles north of Biggleswade, but it can make up train-loads of vegetables on its own account, and its consignments to the Glasgow, Manchester, and other Northern markets, are especially heavy. A 'record' for this one station, in the height of the season, was the despatch of nearly 200 tons of vegetables in a single night. Of parsley—which the average middle-class housewife is content to buy in

* The large imports of onions, whether from Holland or elsewhere, affect another crop as well, that of leeks. On this point Mr. John Gillies, of Northfield, Prestonpans, writes to me in reply to a letter of inquiry: 'I grow a very large quantity of leek plants, and about 20 acres of leeks for full crop. Like other market-gardening crops, these at times command a fairly good price, while at other times, owing to the influx of enormous consignments of foreign onions, leeks have to be ploughed in in large quantities. Frequently very many acres of this very costly crop have to be thus disposed of, greatly to the detriment of the market-gardening fraternity.'

pennyworths—the quantity grown at Sandy is such that 16 tons have been sent to Glasgow from Sandy during a single week. The average annual total of parsley forwarded to that city alone (apart from liberal supplies for Manchester, Liverpool, Sheffield, Leeds, Halifax, Bradford, Newcastle, etc.) is over 600 tons. Glasgow would seem to be still more partial to bunched carrots than she is to parsley,* for of these she took from Sandy in the month of July, 1905, no fewer than 261 tons, a quantity increased to 341 tons in the following month. As many as 40 tons of bunched carrots have been sent from Sandy to Glasgow in a single day; but, to show the amount of labour which such traffic as this may involve, I may mention that this total weight represented 57,600 bunches (of ten carrots each), and that every bunch had to be counted as it was thrown into the waggons. From Sandy to Glasgow the vegetables go express in a goods train originally started from London. The number of growers at Sandy is about 140, but only a dozen or so of these come under the definition of 'large,' and a considerable proportion would be individuals holding 2 or 3 acres each.

I am glad to be able to supplement the facts already mentioned as to the traffic from Biggleswade and

* In regard to parsley production in Scotland, Mr. Gillies says, further, in the letter he has been good enough to send me: 'This year (1905) I grew fully 30 acres of parsley. Of course, the output varies very much with the seasons, and the sale likewise varies according to the time of year. Some seasons the plague of plenty is very severe. In such seasons I have turned out from 10 to 15 tons in one week, but the price on such occasions does little more than repay the cost of pulling the crop and placing it on the market. Of course, it would not do if the crop was always so abundant, and the price so low. My system of growing parsley is quite different from that of the Biggleswade district men. I should not like to grow parsley unless I could lift double the tonnage per acre which the Biggleswade men appear to do. On the other hand, the Biggleswade growers, owing to climatic conditions, can at times command a high figure per ton for their crops.'

ESTIMATE OF FRUIT AND VEGETABLE TRAFFIC VIÂ THE MIDLAND RAILWAY FROM THE BEDFORDSHIRE DISTRICT.

Sending Station and Population.	Principal Receiving Station.	Fruit (Tons per Season).	Vegetables, including New Potatoes (Tons per Season).	Old Potatoes (Tons per Season).	Largest Quantity sent on any One Day.		
					Fruit.	Vegetables.	Old Potatoes.
					Tons Cwt.	Tons Cwt.	Tons Cwt.
Ampthill (2,177)	Manchester	2	—	—	0 4	—	—
	London	2	75	—	—	5 10	—
Bedford (35,144)	London	—	5	120	—	0 18	6 0
	Leicester	—	15	—	—	1 5	—
	Nottingham	5	20	—	1 5	1 0	—
	Isham	—	—	10	—	—	2 0
Cardington (1,304)	Manchester	—	30	—	—	2 0	—
	Leeds	—	30	—	—	1 0	—
	Leicester	—	20	—	—	2 0	—
	London	—	95	670	—	11 0	46 0
Chiltern Green	London	—	—	20	—	—	5 0
Flitwick (1,029)	St. Albans	—	100	100	—	3 0	4 0
	Leicester	—	100	80	—	4 0	6 0
	London	—	90	500	—	6 0	28 0
Harlington (530)	Cricklewood	—	—	2	—	—	2 0
	London	—	—	12	—	—	6 0
Harpenden (4,725)	Ancoats	—	40	—	—	2 0	—
	Birmingham	—	20	—	—	0 10	—
	Sheffield	—	20	—	—	0 10	—
	Bristol	—	7	—	—	0 10	—
	London	—	40	40	—	2 0	6 0
Henlow (905)	Walton-on-the-Hill	60	406	825	13 0	14 0	30 0
Leagrave (801)	Manchester and London	—	100	80	—	3 0	4 0
St. Albans (16,019)	London	—	—	60	—	—	10 0
	Mill Hill	—	—	25	—	—	5 0
Shefford (874)	London	—	2,700	2,400	—	12 0	28 0
Southill (1,054)	London	—	1,500	1,500	—	15 0	50 0
	Total	69	5,413	6,444	14 9	87 3	238 0

Sandy by a table showing approximately the quantities of fruit and vegetables carried from various stations on

the Midland Company's system in the same district. In this way a still better idea will be gained of the total produce of the district as a whole. It is also especially interesting to see how various of the smaller country stations, which the 'through' passenger would scarcely deign to notice, or, noticing, would regard as very insignificant places, may nevertheless be centres of agricultural activity, bringing, one may hope, a fair return to the local residents engaged therein.

Martock (Somerset), which has a population of under 2,000, is still another centre of market-gardening enterprise, combined with a certain amount of fruit-growing. The quantities sent away from the district in an average season may be put at 1,500 tons of apples, 3,000 tons of parsnips and carrots, 100 tons of cabbages, 200 tons of turnips and swedes, 50 tons of peas, 15 tons of onions, and 250 tons of potatoes—practically the whole being for human consumption. Some of these crops are of a speculative character—that is to say, they are grown on the chance that frost in the Midlands and the North may curtail the supplies there, and lead to an increased demand, with good prices, for the Somerset produce. Should that eventually come off, the Martock growers do well. Otherwise they have to accept the situation, and use up the crops in question locally for feeding live stock, or in other ways.

Taking the district comprised within Suffolk, Cambridgeshire, Norfolk, Lincolnshire, and those portions of Essex that are beyond convenient cartage distance, the quantities of market-garden produce—cabbages, broccoli, onions, radishes, etc.—brought to London on the Great Eastern Railway averages 26,000 tons a year. This, of course, is exclusive of the very con-

siderable local consumption, and of the traffic on other lines of railway.

In Northamptonshire there has been a large increase in the acreage of market-gardening on what was formerly arable or grass land. Currants, cut flowers, tomatoes, etc., are extensively sent from Eaton Bray (near Stanbridge Ford) all the year round to Glasgow, Manchester, and other large towns, and asparagus and various kinds of fruit are sent regularly from Lord's Bridge, a good deal going as far North as Glasgow.

At Codsall (Staffordshire) an extensive nursery of about 100 acres has been established, and large quantities of flowers, tomatoes, etc., are now raised on land previously used for purely agricultural purposes —a development which is merely typical of a great deal that is going on in other districts as well.

CHAPTER X

SPECIAL VEGETABLE CROPS

In the present chapter I propose to offer a few details in regard to certain representative crops—potatoes, broccoli, cabbages, celery, green-peas, and rhubarb—which, though still grown extensively in connection with miscellaneous market-gardening produce, are becoming more and more recognised as constituting special industries, affording scope for development on a large scale by growers who devote their attention either wholly or mainly thereto.

The official statistics giving the acreage under potato cultivation in Great Britain are certainly striking enough as bearing evidence to the increasing importance of this particular crop. In 1894 the number of acres planted with potatoes was 504,454; in 1903 it was 564,286; in 1904 it was 570,209; and in 1905 it stood at 608,474 —this last figure being an increase of 38,262 acres over 1904, of 44,185 acres over 1903, and of 104,017 acres over 1894.

But, apart from the fact that allotments of less than an acre would not be included in the return, and that a good many potato fields of little more than an acre might be omitted, we have the important consideration that, concurrently with the increase in acreage, there has been a substantial advance in the yield per

acre; for this rose from 5·53 tons in 1894 to 6·29 tons in 1904, the total production being 2,788,983 tons in the former year and 3,588,254 in the latter. What this difference in yield means can be calculated from the fact that an addition of 1 ton per acre to the potato crop of Great Britain alone is equal in value to a sum of £2,000,000. Including Ireland, the estimated yield per acre increased from 3·82 in 1894 to 5·24 in 1904.

These figures, again, refer to yield only. There is also to be considered the question of a decrease in disease, owing to the introduction of new varieties and the adoption of improved methods of culture. Bearing all these factors in mind, I have the authority of Mr. A. Findlay, of 'El Dorado' fame—whom I had the pleasure of meeting on the new potato farm he has set up at Haxey, Lincolnshire—for the estimate that, during the last twenty years the production of 'saleable' potatoes in this country has increased 50 per cent. Mr. Findlay, I learned, was also of opinion that, with the use of proper seed, potato disease might be extirpated altogether; but this is a technical matter which I would rather leave to the experts.

Taking holdings above 1 acre in extent, the total estimated value of the potato crop of the United Kingdom in 1904 was no less than £20,000,000.

Remarkable stories are told of the degree of success attained by some of the individual growers concerned in this great industry. Thus I have read in the *Spalding Free Press* an interesting account of an interview with Mr. William Dennis, of Kirton, Lincolnshire, who related how he began life as a worker in the fields; how he remembered the time when there was only one grower of potatoes in the district, and he had only 2 acres; how at the present time most of the land in the twenty

parishes between Mainfleet and Surfleet (a distance of about twenty-five miles) is under potatoes; and how he himself now farms 1,600 acres, of which 800 acres are planted with potatoes, while he buys, by acre or ton, the produce of another 800 acres in the district. These figures will convey some idea to the reader of the great expansion the industry has undergone.

Lincolnshire is, in fact, the premier county in Great Britain in regard to potato production, which is carried on to such an extent throughout the Eastern counties that the Great Eastern Railway Company alone bring to London on an average from 97,000 to 100,000 tons of potatoes a year, a 'record' for one especially favourable season being 123,000 tons. The potato traffic handled by the Great Northern Railway Company—who provide at the rear of King's Cross Station a commodious and well-arranged potato market, which represents a great convenience to the dealers—is approximately the same.

Lincolnshire's acreage under potatoes was returned in 1904 as 76,249, with an estimated total production of 416,417 tons, the next largest county being Lancaster, which had an acreage of 44,665, and an estimated total production of 380,239 tons. But these particular figures will hardly appeal to the public imagination so much as the fact that from the aforesaid station at Kirton there have been sent away by rail in a single day no fewer than 95 waggon-loads of potatoes. Giving an average loading of 3 tons per waggon, the 95 waggons would represent a total despatch of 285 tons of potatoes in one day from one country station. This was a 'record' rather than a normal condition, the average for an ordinary busy day being 50 waggons, or 150 tons. Potatoes naturally move in truck-load lots; but, as showing the amount of work involved in handling

the traffic, even in these conditions, I may mention the fact that, on a certain day in July, a total of 52 waggon-loads of potatoes sent from Kirton Station were consigned to no fewer than 28 different towns, situated between Weymouth in the South and Newcastle-on-Tyne in the North. King's Cross and Bradford took between them 17 of the 52 waggons, so that 37 were left to be despatched to 26 different destinations throughout the country, the consignment to no fewer than 18 separate towns being represented by a single waggon-load each. Although, therefore, the traffic is considerable in regard to total bulk, it involves a good deal of clerical work, shunting, and so on.

During the season two special vegetable trains a day are started from Boston—where consignments from a district extending ten miles or so to the north will have been received—and they pick up fresh loads of potatoes, cabbages, or other produce at Kirton, Algarkirk, etc. The Kirton growers alone send away about 15,000 tons of vegetables in the course of a year, and the output of those at Sibsey in vegetables (including potatoes) and grain is probably 11,000 tons a year. A Holbeach grower, again, is said to have sold for £7,000 a field of 370 acres of potatoes.

From the West Cornwall district the consignments of potatoes for a series of years have been as follows:

	Tons.		Tons.
1896	3,685	1901	4,550
1897	5,159	1902	6,108
1898	5,978	1903	6,276
1899	5,082	1904	5,156
1900	5,158	1905	4,633

The growing of new potatoes on the Ayrshire coast is the more noteworthy because that industry has been directly fostered by the Glasgow and South-Western

Railway Company, who conceded specially low rates alike for manure, seed, and potatoes, thus encouraging the great expansion which has since taken place. From Girvan alone the new potatoes despatched between the middle of June and the end of August, 1905, amounted to 13,700 tons, while from the Ayrshire coast as a whole the quantities forwarded to all parts of the United Kingdom during the same period amounted to over 50,000 tons. In order to cope with this traffic the Glasgow and South-Western Railway had to supplement their ordinary service of goods trains by running daily four new-potato 'specials,' occasionally augmenting even this number with some 'extra specials' in the interests of the same traffic.

The growing of new potatoes in Ireland, many parts of which country are especially well adapted to the industry, has received much attention of late years. An article on the subject by Mr. M. G. Wallace will be found in the *Journal of the Department of Agriculture and Technical Instruction for Ireland* for October, 1905. Mr. Wallace says:

The progress of early potato growing in Ireland continues. There has been no great or rapid extension, but wherever the Department have tried experiments the people who conducted them under the guidance of the Department have themselves continued to grow early potatoes, and their neighbours have followed their example. Already the industry has assumed such proportions as to affect the English and Scotch markets, and this year the fields of growing crops were visited by large numbers of merchants from England and Scotland. Happily, the crops were good enough and early enough to satisfy these merchants as to the possibilities of the industry in Ireland, and accordingly, on their return home, they handled with alacrity the consignments of new potatoes sent to them from the growers they visited. Consequently, the Irish early potato crop has now come to be reckoned as a serious factor in the supply of new season potatoes for the British markets. Though no extravagant prices have been received, the season 1905 has been a satisfactory one. The crops have generally been good and very early. They did not suffer from adverse weather, and on the whole prices were remunerative.

Mr. Wallace gives details as to what is being done in various districts, including Clonakilty (Co. Cork), Kilmore (Co. Wexford), Lissadel and Ballincar (Co. Sligo), Murroughs (Co. Clare), Rush (Co. Dublin), and various parts of Co. Down, and he concludes:

> Marketing has been much better done this year, growers no doubt profiting from the mistakes of previous years. The visits of the Scotch and English merchants had also a good effect, as they furnished much useful information. Thus it may be expected that in another year growers will be prepared to meet any marketing emergency.

In various parts of the United Kingdom potato-growing has relieved, more or less, such agricultural depression as may have previously been felt there, and placed good opportunities in the way of those who were alike in a position and shrewd and enterprising enough to take advantage of them. On this point, however, it should be added that potato-growing can evidently be more profitably followed by producers on a large scale, having all the advantages of labour-saving appliances, than by market-gardeners, allotment-holders, and other spade-workers on comparatively small lines.

In the season of 1905 the Great Western Railway Company brought from West Cornwall to various points, for distribution thence throughout the United Kingdom, the record total of 19,092 tons of broccoli. Allowing thirteen crates to the ton, and an average of five dozen heads to the crate, this would represent a total of (in round figures) 14,900,000 head of broccoli produced in a single corner of the country in a single season.

The story of the conditions under which this substantial industry has been developed is an interesting

one. To begin at the beginning, I sought permission to call on one of the pioneers, Mr. William Laity, a venerable Cornish worthy, who still carries on business at Perranuthnoe, Marazion, under the title of 'Laity and Son.' He replied to my request by himself calling on me at my hotel in Penzance, and this is what he had to say:

I am eighty-two years of age; I have lived all my life in one parish, and I have been growing broccoli for over fifty years. I was the first to start it in my part of Cornwall, and the way I began was this: I had heard that some people further west were growing broccoli, and I begged a few plants from them, with no other idea at first than that of getting some broccoli for use in the house. But I grew more than we wanted, so I began sending a few to Covent Garden Market. The first year I only sent about £1 worth; the second year I sent more, the third year still more, and the fourth year a fairly good number. Then the neighbours around me begged some plants, and they began to grow as well. At that time the railway had not come so far as Penzance, and we had to cart the broccoli to Hayle, a distance of six or seven miles, and then put it on a steamer for Bristol. There the railway was joined, and it was in that way the broccoli reached London until the time came when the railway was extended to Penzance.

So the business increased, and already, forty years ago, there were heavy consignments sent away. Twenty years later the word went round that a certain dealer would give the growers £20 an acre for broccoli, and take all risk. That set things going faster than ever. All the farmers took to broccoli, and the great expansion has been since that time; but it still goes on, for every year scores more of acres are being put down.

Some of the growers have done remarkably well; others have done badly. Prices are down now, compared with what they used to be. I remember the time when we used to get £1 a crate. To-day, if we get 5s. to 7s. a crate we are satisfied, though it frequently happens that the prices fall to 3s. or 4s. There are some men who have received at times only 1s. a crate. It is a matter of season and market price; but, in addition to that, some growers get heavily hit when they happen to send to an untrustworthy salesman. I have known instances where they have not only received nothing at all, but the man they have sent to has not even returned the crates. Frost in the Midlands and the North will mean a better time for Cornwall, for then our broccoli will be in greater demand, and bring us a higher return.

How have I got on myself? Oh, well, my father left me a bit of freehold, and I have added to it since, so that I now farm

35 acres altogether. I have 8 acres under broccoli, 3 under potatoes, and the rest general farming. Many growers in the district would have from 15 to 20 acres under broccoli and potatoes on their farms, with other crops besides, and there is a large number of small men with 4 or 5, and up to 10, acres each of broccoli. The broccoli area goes, practically, from Lizard Point to Land's End, a stretch of country something like thirty miles in extent.

How many acres within this area would be used for broccoli production can only be told approximately; but, taking the total output for 1905 at the figure already given—19,092 tons—and allowing thirteen crates to the ton, one gets a total of 248,196 crates. At the average rate of 100 crates to the acre, it would follow that the amount of land required to produce the 19,092 tons would be close on 2,500 acres.

Broccoli-growing, however, constitutes only one of various crops for the West Cornwall grower, and this fact is especially well shown in the case of Mr. Andrew Lawrey, whose extensive farm, situate within a mile or so of Marazion Station, I had the opportunity of visiting. Mr. Lawrey has 40 acres under cauliflower, broccoli, or potatoes, according to season; he has 10 under cabbage, and 15 under flowers. In addition to this, he occupies a certain amount of pasture land, he grows corn and mangolds, he has some good-sized glass-houses for peaches, cucumbers, and tomatoes; and he cultivates sea-kale and asparagus. Altogether he has about 250 acres, but this figure includes some 'marsh' and 'downs' not capable of cultivation. His cauliflower season begins in October or November, and lasts about a month. It is succeeded by an early variety of broccoli, which, commencing in December, lasts till the end of February. The land used for this crop will then be cleared, and planted with new potatoes, which should be ready for lifting early in May, and continue to the end of June. Meanwhile the

late variety of broccoli will have begun in February, and lasted till the end of March. In February also the flower season will have commenced, different varieties of narcissi, daffodils, wallflowers, iris, gladioli, etc., following one another in a continuous series, lasting until August. Cabbage begins about the middle of March in a good season, and lasts until the end of April. In addition to all these things come the peaches, the cucumbers, and the general farm produce already indicated.

Mr. Lawrey calculated that it cost him £50 an acre to plant the new potatoes, but the manure laid down for that crop suffices for the subsequent crop of broccoli. The two, therefore, must be taken together. The details of this estimate of £50 per acre work out thus: 2½ tons of potato seed, £5 10s.; 1 ton of guano, £10; 160 loads of dung,* £32; ploughing, 10s.; labour £2. The return per acre from the potatoes lifted should be from £70 to £80. The cost of the broccoli crop that follows is limited to two items, plants and labour, and these come to a total of about £2 10s. per acre, while the broccoli grown should be worth from £15 to £20 an acre. As against these returns, however, must be set about £12 per acre for rent, tithes, rates and taxes.

Although the sale of broccoli at £1 the crate has become a memory of the past, and although some of the growers have failed to make headway, the business has expanded considerably. In the coast parishes of Madron, Gulval, and Ludgvan, especially, there is hardly a bit of available land that has not already been utilized, and for miles to the east of Penzance the railway passes alongside an almost continuous series of

* Large supplies of sea-weed are available for the purposes of manure. The gathering of this sea-weed constitutes one of the minor industries on the coast.

fields of broccoli or potatoes. The average rent in this especially favoured district (there is a pool in close proximity to Marazion Station, on which, so mild is the climate, no skating has been possible for eleven years) is about £5 per acre, though there are particular farms for which £7 or £8, or even £10, per acre is paid. The tendency, however, is for growers to go further afield, where, though the climatic conditions are not so favourable, the rents are less, and a good deal of fresh land is coming into cultivation for broccoli at Gwinear Road, Nancegollan, and elsewhere. Downs which have been covered with furze from time immemorial are being cleared, and the rentals of land in the newer districts are already steadily rising, the amounts thereof being swollen in some places to uncommercial proportions by the aspirations of Cornish miners who have returned from abroad with substantial savings, and are not very particular about rent, so long as they can 'get a bit of land.' In the neighbourhood of Gwinear Road alone about 120 acres of fresh land have been brought under broccoli cultivation during the last four years, while the consignments from this district increased from 330 tons in 1902 to 572 tons in 1905, and are expected to amount to close on 700 tons in 1906. From Nancegollan (a famous tin-mining district forty years ago, and then employing 1,000 hands) the consignments in 1905 were 342 tons—nearly double the total for 1904.

The growth of the broccoli traffic in the West Cornwall district in general during a period of ten years is well shown by the following figures:

	Tons.		Tons.
1896	12,821	1901	16 896
1897	11,112	1902	15,131
1898	12,395	1903	16,954
1899	12,452	1904	14,373
1900	14,770	1905	19,092

The broccoli, potato, and cabbage traffic (according to season) is carried in special vegetable trains, which start from the Ponsandane siding (one mile east of Penzance, and the same distance west of Marazion), and pick up at Marazion or other stations as required. At the Ponsandane siding there is accommodation for loading forty trucks at one and the same time. Taking the whole of West Cornwall, as many as 938 trucks were loaded up and sent away during a single week—namely, the week ending April 8—in the season of 1905, the totals for the weeks immediately succeeding, as the quantities declined, being 878, 657, 429, 245, and so on. It frequently happens that as many as ten special vegetable trains, carrying broccoli principally, will be sent off in a single day; though it should be added that, owing to the heavy gradients, not more than twenty-five waggons would be hauled in one train by one locomotive. The average loading of broccoli per waggon (owing to the lightness of the commodities) does not exceed about 2½ tons. The consignments go in large quantities, not alone to London, but, by transfer to the lines of other companies, to practically all important towns in the Midlands and in the North as far as Dundee. The Manchester Corporation markets alone have received their 200 tons of broccoli from West Cornwall on a single day.

We have here, therefore, an industry that well deserves to be taken into account among the agricultural enterprises of the country. The question as to the precise extent to which it 'pays' seems to be a matter chiefly of men and markets. There are growers who get into debt at the beginning of the season, and do not get out of it at the end. They sell their crop to some local middleman, who naturally gives them a lower price than the larger growers obtain by consigning direct

to a trustworthy man in a wholesale market; or, if they discard the local middleman, and themselves consign to a London or provincial market, they may pack their broccoli badly, and send either to some town where the supply is over-abundant, or to some salesman who is not honest, with the result that they may find their return diminish to 1s. or so the crate, while other growers, better business men, will make up to 7s. or 8s. the crate. In certain individual cases I heard of growers of the latter type who are reputed to have made from £400 up to £800 or £1,000 on their broccoli crop in a single season. I do not guarantee these figures, but two facts which soon become obvious to an inquirer in the district are: (1) That the personal equation counts for much; and, (2) that there are plenty of people who have confidence in the industry, judging from the important dimensions it has assumed, and the substantial expansion it is still undergoing.

According to the returns of the Board of Agriculture, the acreage under cabbage in Great Britain in 1905 was 67,758, as against 64,607 in 1904, showing an increase of 3,151 acres planted in the one year, or an increase of no fewer than 29,055 acres as compared with 1895. Of the average in 1904, Essex occupied the premier position with 5,259 acres, followed by Kent with 4,601 acres, six counties with over 2,000 acres each, and seventeen with between 1,000 and 2,000 acres.

Inasmuch as, when properly grown, from 20 to 35 tons of cabbages per acre should be produced, the above figures convey some idea of the magnitude of the cabbage output in the United Kingdom. Taking the acreage for 1905, and allowing 20 tons of cabbages per acre, the cabbage crop for the year should be 1,355,000 tons.

But the official figures as to the acreage may be safely regarded as considerably under the actual total for the United Kingdom. There are many thousands of allotment-holders growing cabbages who would not be asked to make any return, and there is a very large number of farmers planting an acre or so of cabbages who would not trouble to make a separate return on so small an item, although the aggregate of these numerous small areas would substantially swell the total if only they could be added thereto.

To tell the complete story even of cabbage-growing in the United Kingdom would be too big a task; but by way of a concrete illustration of what is going on, I might mention that one Scottish market-gardener, seed-grower, and farmer—Mr. John Gillies, of Northfield, Prestonpans—has often turned out 2,000,000 cabbage plants a day, while 1,500,000 a day is a common output for him during the season. He has special trains to take plants from Prestonpans to Edinburgh for despatch per passenger train; but the traffic he provides for goods trains is still heavier. Fifteen or twenty years ago Mr. Gillies had 4 or 5 acres under cabbage plants. He has now 120 acres under that one crop alone.

As for the quantities grown in particular districts, I may mention that from Swineshead (Lincolnshire) there are sent away some fifty or sixty railway waggon-loads (each about 2 tons 5 cwt.) per day for a period of three weeks or a month in the height of the cabbage season; that the total per day from Kirton (Lincolnshire) for six weeks would be thirty waggons; that in the season of 1905 there were consigned from Penzance Station to different destinations in Great Britain 559 tons of cabbages, from Marazion 536 tons, and smaller lots from other stations, increasing the total for West

Cornwall alone to 1,273 tons; and that in Essex very large quantities of cabbages are grown in the district lying south of a line drawn from Romford to the Thames at Thames Haven, though, as almost the whole of this traffic finds its way to London by road, the distance between field and market being, as a rule, under twelve miles, it is impossible in this case (as also in the case of much that is grown in Kent, in Middlesex, and in the Thames Valley) to give even an approximate idea as to quantities.

Eaten either raw or as a cooked vegetable, celery has received a greatly increased patronage of late years, and in the season is almost ubiquitous on the tables alike of rich and poor; though in Great Britain we have not yet reached the stage arrived at in the United States, where a native celery of a particularly flavourless kind ('not worth eating,' a Lincolnshire man would say) is put on the table at the beginning of the dinner, and is nibbled by the guests between the courses, or at any other odd moment throughout the meal, in order, apparently, to fill up time.

The increased public patronage has naturally given a great impetus to the cultivation of celery wherever the soil in Great Britain is suitable thereto; and in certain districts of Lincolnshire and Huntingdonshire especially there are very large areas devoted to celery. There are a few growers who have up to 100 acres of land—if not even more—under celery; there are many who have 20, 30, 40, or 50 acres; there are still more who have from 10 to 20 acres; and there is an indefinite number of very small growers who produce celery on allotments, and dispose of it as a means of supplementing their ordinary wages as farm helpers, or otherwise. Haxey (Lincolnshire), the population of which is

just over 2,000, is a great centre alike for potatoes, for celery, and for other things besides, and I found there on the occasion of my visit to the district that not only does the local station-master take pride in what he can produce from his 1 rood of land (he showed, for my inspection, a bag containing forty potatoes he had dug up from a single root, and a large collection of carrots he had grown from a pennyworth of seed), but the goods-yard foreman also told how he grew celery, and how even his little boy of eight, who helped him with the planting out, had a patch of his own, in which he grew celery for sale, in order to raise a little pocket-money for himself!

Some of the largest growers devote their land entirely to celery. Others plant three rows of potatoes to one of celery, the earth thrown up when the potatoes are raised being available for banking the celery. In either case there is scope for a good deal of employment, especially in the bedding out of seedlings prior to the final planting in the fields. This bedding out is done mainly by women and boys, who are paid at the rate of 6d. or 7d. per 1,000. The work is done with such rapidity that 10,000 plants a day represent a fair average, while individuals who are especially skilful will put in 17,000 plants in a day. The cost of planting celery varies somewhat according to the district, but one large grower with whom I conversed estimated the cost to himself at about £20 per acre, exclusive of rent and other expenses.

The great expansion in celery production in this country has been brought about mainly during the last twenty years, and although that expansion is still proceeding, the output of English-grown celery already offers some very substantial figures. Six miles north of Spalding (Lincolnshire) there is a place known as

Quadring Siding, which will be sought for in vain in the railway time-tables. It is literally a siding constructed in the special interests of the local growers; yet from that one spot an average of 10 waggon-loads of celery, representing a total of about 40 tons, will be despatched every working day in the week for a period of at least two months. A ton of celery represents 100 bundles of 12 heads each, so that 1,200 heads of celery will go to the ton, and 40 tons will comprise 48,000 heads. An acre of celery produces from 15,000 to 20,000 heads.

But Quadring Siding is merely one point of despatch in a celery-growing district which extends from Boston to Surfleet (ten miles) in one direction, and to Swineshead (six miles) in another, one-half of the area comprised within these distances being devoted to celery. The growers around Surfleet (population, 941) will also send off their 40 tons of celery a day. Haxey does even better than Quadring Siding or Surfleet, for there, taking the season through—that is to say, from the middle of September to the end of February—the average consignments of celery for the district will be equal to 20 trucks, or about 80 tons, a day. This is exclusive of large quantities of potatoes, carrots, beetroot, cauliflowers, turnips, mangolds, etc.

Another important centre for celery production is the Ramsey and St. Mary's district in Huntingdonshire. At Ramsey (population, 4,823) there are about 400 acres planted with celery; an average of 5 waggon-loads, or 20 tons per day would be despatched during the season, and the total output for the season is over 3,000 tons. The acreage at St. Mary's may be put at about 110, and there also the average daily loading during the season would be 5 trucks (20 tons), with 10 trucks in a day as a maximum, and the consignments for the

season are approximately 1,400 tons. From still another station in the same district, Warboys, there is despatched the product of about 150 acres of celery.

Nottinghamshire is another large producer of celery, and increasing quantities are being grown around Manchester. At Ashton Moss land to the extent of about 120 acres, formerly used for wheat-growing, is now devoted to celery, large quantities of which are sent into the Manchester market and district. Sale, Timperley, Irlam, and other places in the district, are also producing heavily, and a considerable expansion in celery-growing is expected on the Manchester Corporation's estate at Carrington Moss.

In a 'record' year the Great Eastern Railway Company have brought to London a total of no fewer than 14,000 tons of green peas for human consumption. The average for a period of ten years was 11,000 tons, and of this quantity between 9,000 and 10,000 tons would come from that section of the county of Essex forming the area between the towns of Braintree, Maldon, and Kelvedon, and the coast. Commencing about the second week in June, and continuing until towards the end of July, according to the season, four 'green-pea specials' will run every Monday, Tuesday, Wednesday, and Thursday to bring the peas to London. Each special consists of about 30 waggons, and each waggon will have from 2 tons to 2½ tons of green peas. The consignments begin to arrive at Bishopsgate between 9 p.m. and 10 p.m., and the delivery to the markets goes on up to 6 a.m. or 7 a.m., some 300 and 400 van-loads being sent out between these hours. As many as 950 tons of green peas have thus been dealt with in the course of Friday night and Saturday morning. The

traffic (which is handled mostly in large consignments) has long been carried on, but during the last twenty years it has increased 15 or 20 per cent.

From the London markets substantial quantities of these green peas are afterwards sent to Manchester, Bradford, Leeds, Birmingham, and other places. Some years ago the Great Eastern Railway Company sought to induce the growers to forward direct to the markets in these various towns. The company arranged a series of fast trains going there from the green-pea district of Essex, and ran them for several seasons. They made the fact well known among the people in the district, they supplied the names of salesmen in the different markets, and they put themselves into communication with these salesmen as well. But their efforts remained unsuccessful, the reason being that a very large number of the green-pea crops are bought, while still in the fields and before they are gathered, by London salesmen, who prefer to have the peas brought to London, and distributed thence to their ultimate destination. This double journey, persisted in notwithstanding all the efforts of the railway company, would seem to suggest that the item of railway rates for green peas has not much to do with the selling price.

The production of green peas forms an important industry also in the stretch of country lying between Goole, Selby, Church Fenton, and Wakefield, in South Yorkshire. The amount of land so utilized is about 4,000 acres, but the acreage varies from year to year, green peas being a rotation crop, resorted to the more freely if other crops, and especially clover, should fail. Goole is the chief centre of the industry. There the green-pea area extends over a ten or twelve mile radius, within which there are growers both large and small. Some of the farms are very extensive. One

grower in the district has three or four farms which, in the aggregate, comprise over 1,000 acres. Of these about 200 acres will always be under green-pea crops. The smaller farms consist mostly of a few acres, and the majority might not have more than 1 acre at a time under green peas.

On an average busy night during the 1905 season 70 tons of peas, or about 35 waggons, were sent from Goole. The total quantity forwarded from Goole during the season was 785 tons, this being the largest tonnage of peas from any one station on the North-Eastern Railway. Three-quarters of the green-pea traffic from Goole will, however, be put on rail by three large growers.

The green-pea areas around Church Fenton and Selby do not extend for more than three miles from the places named, but the production is such that on an average busy night in a season 20 tons will be forwarded from Church Fenton, and 40 tons (representing about 20 waggons) from Selby. Including the traffic on the Lancashire and Yorkshire Railway (which will handle 200 tons of peas on a busy night) and the Great Central, the total consignments of green peas from South Yorkshire in an average season may be put at from 7,000 to 8,000 tons. The places to which they go include London, Manchester, Liverpool, Leeds, Newcastle, Bristol, Birmingham, Hull, Bradford, and Blackburn.

Among other parts of the country where green peas are produced on a considerable scale, I may mention the Bridgwater district of Wiltshire, from which centre an average of 6 railway trucks a night (representing about 12 tons of peas) will be consigned either to London or to South Wales during a period of six weeks.

Some five-and-twenty years ago, during one of the worst phases of agricultural depression in this country, a farmer from the outskirts of Leeds met two friends, who, in the course of conversation, asked how he was going on. 'Oh,' he replied, 'I shall have to give up my farm; I can't make it pay.' A year or so later he met the same two friends again, and they asked if he had carried out his intention of giving up his farm. 'Yes,' he said, 'I am sorry to say I did, for a man came along, took it up, planted it with rhubarb, and is making a pot of money.'

Since those days, in fact, the production of rhubarb has become a speciality in and around the city of Leeds, and, although it is difficult to obtain reliable figures, a moderate estimate of the business done shows that, apart from the local consumption, the quantities despatched from Leeds during the season will represent a total of from 5,000 to 6,000 tons. Certain it is that in a good year as much as 250 tons of rhubarb have been sent from Leeds to London alone in the course of a single week. Every night, except Saturday and Sunday, for a period of about three and a half months, beginning towards the end of January, a special 'rhubarb train' runs from Leeds to King's Cross to take supplies to the London markets. Rhubarb from Leeds is also carried in large quantities to Manchester, Liverpool, and Glasgow. It is much appreciated, too, in the colliery districts of South Wales. It goes to Plymouth and to the Channel Islands; and it goes even to Hamburg, for distribution to various places on the Continent.

The 'rhubarb special' here referred to is an 'express goods,' consisting of special vans fitted with the automatic continuous brake (similar to that in use on passenger trains), so that a speed of up to sixty miles

an hour can be obtained, as against the thirty or forty miles an hour which ordinary goods trains, having no automatic continuous brake, may not exceed.

It is forced rhubarb that constitutes the Leeds district speciality. Known there altogether for some forty years, the growing of it on a substantial scale was first resorted to more recently, not only because of the falling prices of ordinary agricultural crops, but also because of the increasing competition which market-gardeners in the immediate neighbourhood of Leeds were meeting with from others more favourably situated as regarded the rental of their land. The Leeds growers found it desirable, in the circumstances, to get a better-paying crop, and there were various conditions that favoured the growing of forced rhubarb, either by itself or in combination with other produce.

The method adopted by the growers is to plant the rhubarb roots in the open first of all, and leave them there for two, if not for three, years, without any of the leaves being plucked. Then when the leaves have entirely died down the roots are either ploughed or dug up and carried into sheds varying in size, but often 100 feet long and 30 feet wide. They are planted thickly in these sheds, which are quite dark when the doors are closed, and are artificially heated, while the atmosphere is kept at the requisite degree of moisture. At the end of five or six weeks, in an ordinary course, the rhubarb is ready for plucking; but within certain limits the growth can be hastened or retarded—by either increasing or decreasing the heat—to suit market conditions.

The special advantages possessed by the Leeds growers were found to be: (*a*) that the soil was particularly favourable to rhubarb cultivation; (*b*) that the neighbourhood of a large city allowed of the great

quantity of stable manure required being obtained at a comparatively low rate; and (*c*) that very cheap fuel, in the form of coke refuse, could be secured from the local gasworks, which, indeed, at first regarded the said refuse as of so little value that it was willingly given away, though subsequently a small charge was made. The rhubarb-growing area is within a radius of eight or nine miles of Leeds, and is chiefly on the south and south-east sides of the city, a good deal, however, being also grown on the west. The holdings devoted to rhubarb production within this area range in dimensions from 3 to 100 acres.

Some of the growers make a fair living out of 15 acres—indeed, it was suggested to me by one influential trader at Leeds that it was quite possible the small growers might do better than large ones, who were tempted to launch out too much, thus incurring unduly heavy expenses. It seems, also, that the public demand for rhubarb varies according as the supply of apples is large or small, while the forced variety is not wanted much after Easter, whether that festival be early or late. Many of the smaller growers, again, supplement their production of early rhubarb by growing cabbages, supplies of which are sometimes sent from Leeds to the London market.

Whether 'a pot of money' can be made out of rhubarb-growing to-day is somewhat doubtful, considering the greatly-increased production, and other disadvantages of the situation; but it is significant that of late years the growth of forced rhubarb has been resorted to more and more around London, which is thus becoming less dependent on Leeds, to the disadvantage of the growers in and around that city.

CHAPTER XI

EVESHAM AND ITS STORY

ACCORDING to local historians, it is over a thousand years since market-gardening was first introduced into Evesham by the monks who founded the great abbey, and the industry has been followed there continuously ever since.

Whether or not the local historians are warranted in their statement, I will not stay to discuss; but certain it is that the great developments have all been brought about within the last two decades, and, apart from the important consideration of the fertility of the soil and the exceptionally favourable climate in the famous Vale, those developments may be attributed mainly to three factors—railway facilities, agricultural depression, and the telephone.

When Arthur Young visited the district, about the year 1770, he found from 300 to 400 acres devoted to market-gardening. In these days, however, the question of distribution presented the most serious of difficulties. Having grown their produce, the market-gardeners had to take it by road to Birmingham, Worcester, Tewkesbury, Gloucester, Warwick, or elsewhere, in order to find customers. By 1845 the area under cultivation as garden land had increased to a little less than 600 acres. This was only a comparatively slight

advance; but, with the advent of the Midland and Great Western Railways, giving improved access to Oxford and London, to Birmingham and the North, to Gloucester and Bristol, and other populous cities besides, considerable expansion followed, so that by 1870 the gardening area had increased to about 1,000 acres.

As long as general farming was profitable the market-gardening played only a secondary rôle. When, however, agricultural depression came, the big farms that were no longer sufficiently remunerative under cereals were cut up into small farms or small holdings for fruit and vegetable cultivation, and this brought upon the scene a large body of farmers' sons, labourers, railway men, and others, who had been awaiting some such opportunities for starting as market-gardeners on their own account.

Prior to this development many young men, despairing of getting land at Evesham, had migrated to Canada, and settled there. Such migration now practically stopped, and scores of active, intelligent, and sturdy workers, who might otherwise have been lost to their country, settled down on holdings varying in size from 2 to 10 or more acres. Evesham became, in fact, a land mainly of small holders, and the gardening area has spread out so far in the district that it may to-day be put at from 20,000 to 25,000 acres.

Taking the market-gardeners of Evesham as a whole, it may be said that 75 per cent. of them started life as labourers. The crop to which many of them have been mostly indebted for success is asparagus, and I have heard it said that, 'until the blight came, no man who had once got his asparagus bed in good order had been known to fail.' Whatever the crop, the amount of produce the growers secure from a comparatively small

bit of ground is certainly remarkable. There is plenty of hard work done, but there is no room for doubt as to the general success. In one instance a grower related to me that he began as a farm-labourer, then got an acre of land, and was now working 6 acres, with asparagus as the principal crop. He did most of the work himself, being on sometimes in the summer from three in the morning till nine at night; but he got help in the asparagus season. In spite of the hard work, he enjoyed the life, found himself much better off than when he was working for someone else, and had no doubt that, if he wanted to build his own house, he could find the money to do it with.

This is really a typical illustration of what has been going on at Evesham; but in certain instances the degree of success attained as the result of conspicuous individual talents in the way of intelligence and business aptitude is even more remarkable. Large and important concerns have been built up within a comparatively short time by men who began in quite a small way, and one can hear at Evesham of 'examples' as striking as any that are told respecting successful settlers in Canada or other new countries. The final result is that, no matter in what direction one drives out from Evesham, one sees for mile after mile a landscape that consists almost entirely of market-gardens.

One of the main reasons for all this expansion is undoubtedly to be found in the exceptionally good railway facilities enjoyed by the district. 'We have,' said one of the leading local growers and traders, Mr. John Idiens, to a *Market Growers' Gazette* interviewer, 'an almost perfect train service to every point of the kingdom. . . . It has,' he added, 'been a unique experience for me to go around the district and see different people, and to find that they have no com-

plaint to make against the railway companies.' Within a radius of five miles of Evesham there are now fourteen railway-stations. From Evesham itself special vegetable trains are despatched on both the Great Western and the Midland systems all the year round, becoming, of course, especially numerous in the summer months. Sent from Evesham at 12.30 mid-day, produce will reach Edinburgh or Glasgow at 6 o'clock the next morning, or, consigned to Leeds between seven and eight in the evening, it should arrive there about 3 a.m.

While the railways were thus improving their services, the growers and the traders were making an effort to put marketing and distribution on a better footing. At one time the growers sent their produce mainly to salesmen in various large towns, and trusted to the honesty of those salesmen and the condition of the markets to get the best prices they could. But, whatever the degree of probity of the salesman, the stuff often went to markets already congested, and the results from a financial standpoint were then most unsatisfactory.

New conditions were at last established on the opening of two local markets, at which the growers could dispose of their produce to local dealers by auction. Of these local dealers a goodly number established themselves at Evesham, and they made a speciality of working up a direct trade with a multitude of smaller provincial towns which had hitherto looked to London or some other leading city as their distributing centre. Manchester, for instance, the 'Covent Garden of the North,' is the point from which a large number of towns throughout Lancashire, Cheshire, and Yorkshire draw their supplies, by dealing with the wholesale merchants in the markets there, and the aim of the Evesham traders has been to send Evesham produce direct to these smaller towns, instead of leaving them

to obtain it viâ Manchester, thus saving at least one intermediate profit. The same principle has been applied to other parts of the United Kingdom as well. Except in regard to the very best qualities of asparagus, and one or two other articles, the great desire of the Evesham traders was to keep off the London markets, which were already receiving such prodigious quantities from other sources of supply, and especially from the market-gardens in the Metropolitan suburbs. 'If we had to depend on London,' I was told, 'we should soon be in the workhouse.'

In reorganizing the business on this footing, the Evesham traders were greatly aided by the knowledge they obtained of local markets, as the outcome of frequent journeys; but they were aided still more by the telephone, the use of which has alike widened the area of distribution and increased the prices realized by something like 25 per cent. A very large proportion, indeed, of Evesham's vegetable and fruit business is now done over the telephone. A dealer 'rings up' one town after another in England, Wales, or Scotland —I have heard of one instance in which a list of forty calls was gone through—and transactions involving important deals are settled straight off. One trader told me how, seated in his office in Evesham, he had disposed, over the telephone, of 200 tons of plums to a jam-maker in Scotland in less than three minutes. There are some large traders in Evesham who consign exclusively to 'order,' per telephone or otherwise, and no longer send to salesmen, except on such order. But, in any case, the use of the telephone enables grower or trader to get into direct touch with a great range of local markets, and in this way the whole trading conditions at Evesham have been placed on a better footing than was formerly the case.

Thanks to these various conditions, the expansion of the market-gardening industry at Evesham has been really enormous of late years, the quantities sent away from that one centre alone being such as few persons, probably, not directly concerned in the business done, have realized. Evesham is, also, in the favoured position of having more or less output throughout the entire year, instead of depending on a few crops at certain seasons. She produces, in fact, some forty different kinds of vegetables, fruit, and flowers for distribution to places as far remote as Jersey and Guernsey in the South and Belfast and Aberdeen in the North; the best markets of all, perhaps, being those in South Wales, which has more especially been 'the salvation of Evesham.'

The business is naturally at the lowest in the months of January and February, yet even then there are sufficient vegetables—chiefly savoys and sprouts—sent away by train to fill up from 30 to 40 waggons a day. In March cabbages, radishes, and lettuces increase the bulk to from 50 or 60 trucks the day. In April spring cabbages, spring onions, and a certain amount of asparagus will be added to the list, and the total consignments go up to 140 trucks a day. In May large despatches of green gooseberries swell the total to 250 trucks the day, and, though the green gooseberries fall off in June, the larger supplies of asparagus, and, towards the end of the month, the earliest pickings of strawberries, keep up the number of truck-loads to about the same as in May. But this number increases to no fewer than between 300 and 400 trucks a day during the months of July, August, and September, when plums, strawberries, currants, apples, pears, green peas, kidney-beans, broad-beans, vegetable-marrows, etc., will all be handled in sub-

stantial quantities. Of plums thousands of tons go to the jam factories. Of strawberries a single train may take up to 20 tons. In October the fruits will have fallen off, but sprouts will have begun, and cauliflowers are carried in bulk, so that the truck-loads still number 200 a day; in November a heavy business in sprouts and savoys keeps the total up to 120, and throughout December the consignments still require an average of 100 trucks a day. The loading of the waggons ranges from 23 cwt. to 4 or 5 tons, according to the commodities carried.

It is quite a common occurrence in the height of the season for a single railway company to send off six special vegetable trains a day from Evesham. But, although the quantities handled are so substantial in the aggregate, the general average of the weight per consignment is comparatively small, as may well be the case considering that there are about 200 'small' senders in the district, in addition to the 'large' ones, and that the produce is sent off to so many different consignees in so very many different towns throughout the United Kingdom. Then, again, a single consignment, forwarded by one trader to one customer, has been known to consist of twenty-three different kinds of vegetables. In this way if the number of consignments handled by a single company on an ordinary busy day were put at 500, the number of packages comprised therein might be anything up to 10,000. As these would nearly all be delivered at the station between 4.30 and 6 p.m., the reader may, perhaps, form some idea of the 'rush' which takes place in dealing with the traffic. A 'census' of the vehicles entering the Great Western goods-yard at Evesham during the course of a day in July showed a total of 717.

Taking the entire production of fruit and vegetables throughout the county of Worcester, I have good authority for the statement that the quantities despatched throughout the United Kingdom from this one county alone, on an ordinary busy day in the height of the season, would be equal to a total of 1,000 tons. On the face of it, there might seem to be the danger of over-production, and true it is that during 1905 there were complaints in various quarters of falling prices and diminishing profits. But one of the largest and most experienced growers whom I consulted on this question at Evesham scouted the idea of over-production, and declared that, in spite of all the growers had done hitherto, they were 'still in the first quarter.'

His view, I found, was shared by others. What the industry is suffering from—if it is really suffering at all—is not over-production, but a still incomplete system of distribution. The progress already made at Evesham in opening up fresh markets throughout the British Isles has been most substantial; but there are possibilities of considerable further improvements in marketing, and it is in this direction, rather than in that of a restriction of output, that action needs to be taken.

The further question is being seriously discussed at Evesham whether the ordinary markets of the country, as an outlet for fresh fruit and vegetables, could not be supplemented by the organization of a substantial canning business, which would not only utilize any possible surplus, but also substitute an important British industry for a large proportion of those canned fruits and vegetables now coming into the United Kingdom in such large quantities from other countries. It is especially pointed out that since the imposition of a duty on tinned fruit, equal to about 2s. per dozen 3-pound tins, English fruit-growers have been placed in a

much better position in regard to the utilization of their surplus produce, so much so that two years ago one firm in this country turned out in the course of the season no fewer than 1,000,000 cans of fruit. Other firms have since taken up the enterprise, which the Evesham growers expect will develop before long into a business of considerable importance, with wide possibilities of an export as well as of a home trade. In any case, it should afford a better alternative, in times of 'glut,' than that of allowing plums or other fruit to rot on the trees because, with the extreme lowness of market prices, it will not pay to pluck them.

In the matter of vegetables, again, it is especially pointed out that Evesham has paid great attention of late years to the growing of asparagus, the market for which has greatly increased during the last decade. There was a difference of opinion among the authorities I consulted as to the real extent of the area devoted to asparagus in the Evesham district. Some thought there would be fully 4,000 acres, while others considered that 3,000 would be nearer the mark. But there was unanimity in the view that the production could be extended over thousands of acres more if the surplus, after the ordinary markets had been supplied, were tinned, and either sold at home—in place of that coming in the same form from France and Germany—or else exported to our colonies or foreign countries.

Further encouragement in these directions is derived at Evesham from the experiences of the United States. There, it seems, no fewer than 20,000 fruit and vegetable canning factories have been set up, giving direct employment to 1,000,000 persons, and indirect employment (in the way of making tins, printing labels, etc.) to 4,000,000 others. The fruit and vegetables used in

these factories are produced on 30,000 farms, representing 1,500,000 acres of land, and the amount paid to the growers gives a total of $25,000,000. The number of cans turned out in the course of a season is 600,000,000, the wholesale price of which is put at $48,000,000. 'Why,' it is asked at Evesham, 'should we not do more of this kind of business at home, instead of either leaving our fruit and vegetables in the gardens, in prolific seasons, or getting non-remunerative prices from glutted markets, and then actually importing canned fruits and vegetables from other countries, simply because, as it would seem, we have not sufficient enterprise to work up our surplus stock ourselves?'

Nor do the Evesham growers look at the question from an exclusively selfish point of view. The creation here of a big canning industry would be good, they say, not alone for the country districts, but also for the towns, since, as the American statistics show, it would mean a substantial increase in the volume of employment for can-makers, printers, and others working mainly in the urban centres. Some degree of help would thus be given to the solution of the problem of unemployed artisans, in affording them work of a kind for which they were better adapted than, as persons who had spent all their lives in towns, they would be for actual fruit-raising. That, at least, is the point of view from which the matter is regarded at Evesham, where the wide knowledge and the varied qualifications requisite for successful fruit-growing and market-gardening are too well appreciated for there to be much confidence felt in proposals for the wholesale transfer of town-workers—or non-workers—to the country.

Whether or not developments are likely to be effected on quite so broad a scale as this, the Evesham growers think it a matter for regret that the average English

housewife does not more generally follow the example of her Canadian sister in bottling fruit herself in the time of plenty for use in her household during the winter season. But perhaps the average English housewife would be the more disposed so to do if the Evesham growers were to prepare and issue broadcast some practical leaflets giving clear and explicit directions as to the best way in which fruit could be bottled for domestic use.

Then the growers at Evesham have been paying considerable attention of late years to the production of fruit and vegetables under glass. They have felt that the introduction of glass-houses on the Guernsey principle would be a great help to the general industry at Evesham. It would allow of a more active competition with other producing centres in respect to early varieties, and it would also enable the Evesham market-gardeners to supply their customers with all that they required, instead of leaving them to obtain, say, tomatoes or cucumbers from some other source at a comparatively high rate for an odd lot. I have said already that a single consignment of vegetables and fruits from Evesham to one dealer has been known to consist of twenty-three different varieties, and the reader will understand that the dealer in question might well prefer to obtain a twenty-fourth variety from the same grower, to be delivered in the same consignment, instead of looking for it elsewhere. Evesham has thus resolved to become a rival of Guernsey, and though the island may lay claim to a still more genial climate, the inland town has the advantage of cheaper coal. In view of this latter fact, combined with their greater nearness to the consuming centres, the Evesham growers are entering into the competition full of confidence, so that, as one of them remarked to me, 'We

shall soon have Guernsey in Evesham.' It was not until 1904 that the said competition was started in real earnest; yet in the early days of December, 1905, I was told that within the course of a single twelvemonth Evesham had already spent on glass-houses no less a sum than £10,000.

Still more interesting, however, is the attempt that is being made at Evesham to grow those very early lettuces, and other *primeurs*, for which hitherto English consumers have been accustomed to look to France. This experiment is the outcome of a visit paid to Paris in January, 1905, by a number of market-gardeners from Evesham, who went there for the purpose of seeing for themselves the method of cultivation adopted in the growing of these early lettuces. As I was permitted to accompany the deputation, I may be excused, perhaps, for reproducing the following account of the proceedings which I contributed to *The Times* of January 20, 1905:

ENGLISH MARKET-GARDENERS IN PARIS.

A visit which a party of some thirty market-gardeners and dealers from the Evesham district of Worcestershire has just paid to the environs of Paris is a noteworthy event in the history of British horticulture. It has been generally assumed that there was no chance for British producers to compete with those of France in the supply of early lettuces, carrots, radishes, etc., for English markets; and the tendency in England has been for growers to content themselves with making reflections against the railways in respect to the large quantities of foreign produce carried by them —mainly at a time when no English-grown supplies of that kind are available. As it has been represented to certain influential traders at Evesham that the Paris growers who send over their 4,000 or 5,000 crates of early lettuces and their 500 crates of early carrots to England every day throughout the season had no real advantages which could not be equally enjoyed at Evesham, the visit was arranged with a view to an inquiry into the particular conditions under which the French industry is carried on.

The facts ascertained were not only interesting, but most encouraging. An inspection of a number of market-gardens just outside the fortifications on the south-east of Paris (where such gardens extend for a total distance of eight miles) has shown that

the success of the French growers is due less to any climatic advantage than to a very practical system of cultivation under glass on what are, in effect, forcing-beds, to which, however, no artificial heat is applied. At first sight a Paris market-garden presents the appearance of from 1½ to 2 or more acres of land almost covered by ranges of glass-frames standing about 1 foot above the soil, while over each is a straw mat, which can readily be rolled up during the day, when the temperature allows. These frames are supplemented by hundreds of bell-shaped glasses, known as *cloches*. Under these the lettuces are grown, various transplantings taking place, according to growth. Frames and *cloches* alike stand on beds made up of rotten horse manure, with a certain proportion of fresh manure, especially as a foundation, fresh manure being at the same time piled up alongside the frames and around the *cloches* to protect them from frost. Some of the gardens seem to consist almost entirely of this rotten manure. In the case of lettuces there are three successive sowings, beginning in August, the lettuces being ready for the market in six weeks. The supplies continue until April. The varieties grown are the 'cabbage' and 'cos,' one of the latter and three or four of the former being planted under each *cloche*, with larger quantities in the frames. The early carrots and turnips are grown under like conditions, and there is every reason to believe that the business is a most lucrative one.

The opinion formed by the visitors was that, while not every part of England would allow of the growing of early vegetables according to the French method, yet there were no climatic conditions which would prevent the adoption of that method in the favoured district of Evesham, and especially on the warm banks on Longden Hill and those facing the south. Evesham, with its warm, moist climate and encircling hills, was, in fact, regarded as still better adapted to such an enterprise than the exposed environs of Paris; and some of the growers asserted that the cabbages which they had growing in the open were much more advanced than those they saw in the open around Paris. The only difficulty lay in the procurement of enough manure, at a sufficiently low price, at Evesham. Assuming, however, that this difficulty could be surmounted, the general conclusion was that early salad lettuce for the English markets could very well be grown with equal success and economy in the Vale of Evesham. It was admitted that Evesham could not produce all the supplies likely to be required, and that, whereas the French lettuces came to London, any that were provided by Evesham would be more likely to go direct to the markets of the Midlands, the North, and South Wales. There should, however, be room for both French and British supplies; and it is hoped that salads in January, February, and March may become an item of popular diet in England, instead of being, as at present, mainly a luxury for the well-to-do.

Experiments will at once be started at Evesham on the French lines.

Among those forming the deputation was Mr. John Idiens, of the firm of John Idiens and Sons, Limited, Evesham, and before leaving Paris that gentleman engaged a French expert to come over to Evesham, and there start on a portion of Messrs. Idiens' farm the experiments referred to in the closing paragraph of my communication to *The Times*. This arrangement was duly carried out, and, on visiting Evesham early in December, 1905, I had the opportunity of seeing, or learning of, the results, so far as they had then been attained.

I found that the experiments had been initiated with such expedition that actual growing in the 'French garden' was commenced in March, 1905; though the Frenchman in charge told me that it would take about two years before the manure so abundantly employed had rotted down into the same quality of light peaty soil as that employed in Paris. Any possible difficulty in the way of obtaining straw stable manure had been surmounted with the help of the Great Western Railway Company, who were providing it to the firm at the rate of 5s. 10d. per ton, delivered at Evesham. Water was obtained from the river Avon, being pumped by a gasoline engine into a large tank, from which it is distributed over the garden. Thus the firm had secured the two primary essentials specified by the French expert when he remarked to a visitor: 'Give me plenty of stable manure and water, and I will grow you anything.'

But that expert wanted also to grow in accord with French principles down to the smallest details. Thus the implements used have been imported from Paris, the French varieties being regarded as better suited than English to the particular requirements of a 'French garden,' and the workers even use baskets strapped on

the back, *à la Française*, for the distribution of manure. The English helpers have taken quite kindly to this system. With the basket on their shoulders, they get over the soft ground (where there are no paths) much more readily when they have no wheelbarrow to push before them; they toss the manure out of the basket with a minimum of trouble, and double the amount of work is got through in a given time than would be possible with barrows. The baskets have, therefore, now been definitely adopted, though these will be made locally, on the French model. The mats for covering the frames and bell-glasses, as a protection against frost, are also exactly like those used in Paris. They are made by the hands employed on the French garden, a large shed having been erected thereon in which this work can be done on wet days. The rye straw used for the purpose is grown by a large farmer in the district.

The amount of land on which growing had been carried on since the beginning of the experiments in March was 3,600 yards—a quarter of an acre; but preparations were in progress for the extension of the French garden over an area of 5 acres. To this end there were already, either in actual use or in the grounds ready for use, 600 frames and 2,500 bell-glasses (*cloches*). The complete success of the experiments had, in fact, already been abundantly assured, eight months' results having alone sufficed to bear remarkable evidence of the degree of fertility and productiveness possible under the conditions stated. The actual crops secured during that short period are shown by the appended table (p. 148).

No attempt has thus far been made by the firm to dispose of this 'French' produce from Evesham otherwise than through their own depôts at Cheltenham, Gloucester, Bristol, Bournemouth, and Blackpool; but

EIGHT MONTHS' PRODUCE FROM A THREE-QUARTER-ACRE PLOT IN THE FRENCH GARDEN OF MESSRS. JOHN IDIENS AND SONS, EVESHAM.

1905.	Radishes.	Lettuce.	Turnips.	Carrots.	Cauliflower.	Cress.	Cucumbers.	Parsley.	Onions.	Melons.	Cabbage.	Pumpkins.	Tomatoes.	Salsify.	Endive.
	Doz.	Doz.		Bunches.			Doz.	Bunches.	Bunches.		Doz.		Lbs.	Bunches.	Bunches.
April ...	280	18	—	—	—	—	—	—	—	—	—	—	—	—	—
May ...	225	60	1 crate 85 bundles	—	—	—	—	—	—	—	—	—	—	—	—
June ...	52½	5½	273 bunches	545	6 bushels 30 doz.	1 sieve 46 bunches	12½	140	22	—	—	—	—	—	—
July ...	274	51½	683 bunches	331	34 doz.	35 bunches	131	233	1,276	270	17	—	—	—	—
August ...	—	74	262 bunches	—	—	13 bunches	168	425	415	318	12½	2	41	—	—
September	—	111½	—	—	28½ doz.	—	80	257	528	127	11	20	238	—	—
October ...	—	210	—	—	58 doz.	—	40	50	—	2	—	13	68	148	414
November	—	37	—	—	38 doz.	—	—	123	—	—	—	—	—	492	432
Totals ...	831½	567½	—	876	—	—	431½	1,228	2,241	717	40½	35	347	640	846

In addition to the above, 5,000 sticks of celery were produced.

as regards distribution in general, this should be effected more promptly in the case of the Evesham salads, etc., than of those coming from France. The former can be despatched by goods train from Evesham at six in the evening, to arrive in London by midnight; while as regards leading provincial centres there should be the saving of a day in the transport from Evesham, as compared with the transport from the environs of Paris. The saving in freight, also, is no less important than the saving in time and the consequent gain in freshness, the railway rates for French vegetables from Evesham to London being 25s. per ton, as against 95s. per ton from Paris to London.

It is still too early to speak definitely as to the financial results of the Evesham experiment, for though the prices realized on the produce grown in the French garden there between April and November were substantially higher than those secured for the corresponding English produce grown under ordinary conditions, Messrs. Idiens had not had the advantage of selling during the earliest months of the year, when prices would naturally be at their best. All the same, I asked Mr. John Idiens if he could form any estimate as to the probable outcome from a financial standpoint; and, after taking time to consider the matter further, he has favoured me with the following communication:

Roughly, we should think that the gross annual value per acre of the produce from the French garden will work out at from £600 to £700. This calculation is based on the actual results obtained from ¾ acre. Until we have had a full twelve months' trial we cannot say what the expenses will be, but so far we are quite satisfied. The conclusion at which we have arrived, as the outcome of our experiment, is that this 'French produce' can be grown quite as well in England as in Paris, provided fairly good aspects are selected. This is the opinion also of the Frenchman in charge of the garden. He considers that our climate is better for the early lettuces than the climate around Paris, as nothing like the same proportion have

been spoiled by the damp—'damped off,' as we say—compared with what is experienced in France. When the deputation visited Paris, it seemed to be the general opinion that, our climate being damper, we should not be able to grow the lettuces with the same degree of success. This was the only thing that I, personally, was doubtful about, but I now feel convinced that we are on the safe side, and it seems to me there is nothing whatever to stop the extension of this system of gardening if the right sort of practical man is obtained for the start. There should be no difficulty in the way of getting plenty of such men from the Continent.

In face of all these various developments, actual or prospective, the reader will understand what was meant by the Evesham grower who, as already mentioned, declared to me that they were 'still only in the first quarter.' Instead of 'agricultural depression' one finds at Evesham plenty of life and energy, and plenty of confidence in future prospects—so much so, indeed, that important schemes are in the air for extending the growing area. But of these I will speak in detail later on, in connection with the subject of small holdings.

CHAPTER XII

THE TRADE IN EGGS AND POULTRY

We come next to the almost illimitable possibilities of the egg and poultry business, in which further striking evidence is afforded alike of the increased purchasing power of the people and the expansion of their once comparatively limited dietary, and the chances open to those who will supply the commodities in question.

In 1864 the value of eggs imported into this country was £834,028. In 1904 it was £6,730,574, an increase of £5,896,546 in the course of forty years. Even allowing for improvements in the home supply, it is evident from these figures that the chief benefit from the greater consumption has gone to the foreigner. The reason is not far to seek. It is not because we have any lack of good qualities of birds. On the contrary, English fowls of the best breeds are sought for by the countries alike of Western and Eastern Europe, and they have recently been sent out to South Africa to establish poultry-yards there. It is due, rather, to the twofold reason: (1) that in the days when wheat production was so profitable in the United Kingdom the British farmer disdained to trouble himself about egg production; (2) that to-day, when agricultural conditions have changed, the British farmer either too often retains his old prejudices, or else fails to come into line with that

system of organization or collection which alone permits of the consignment of large quantities of eggs from the foreign countries now sending us the bulk of our imports. For the farmer or the cottager to try to get a living out of eggs alone would be a mistake. But, regarded as a subsidiary industry, involving no large outlay and no great amount of labour—especially where there is land available over which the birds can run without being cooped up—egg production should be looked at as a source of additional profit not to be despised.

The crux of the question, however, is not the production of eggs at home, but the marketing of them, and here is where the need for combination comes in. The almost helpless position of the British farmer as an individual unit is especially noticeable when he wants to dispose of the basket of eggs he has got from the fowls he keeps. By the time he or his wife has taken them to the market town, and there obtained such price as the middleman dealer thinks fit to pay for them, the business may well seem to be more trouble than it is worth. In Denmark, on the other hand, there are 400 egg societies, which not only collect from their 30,000 members—saving them all trouble in the way of marketing, and paying them a fair market price—but also test and grade the eggs, so that both the dealers and the consumers can depend on the quality of what they buy.

With a similar organization on a widespread scale in this country, not only would the present difficulties of the British farmer in the way of disposing of his eggs at a remunerative price disappear, but he would find it worth his while to go in still more extensively for a business which he has deliberately allowed to drift so largely into the hands of foreigners. It may be that with their cheaper land and larger areas the

peasantry of Hungary, Servia, Roumania, Siberia, and other countries, will always be able to provide eggs of the cheapest type at a lesser cost than could be done at home. But when, in the case even of Dutch eggs (of which large quantities are sent to England), there is generally a delay of from six to ten days before they reach the actual consumer, the advantages in favour of the English farmer controlling the market for really 'new-laid' eggs are obvious. All that is needed is that he should avail himself of his opportunities, along the excellent lines advocated by the National Poultry Organization Society. This most useful body (with whose secretary, Mr. Edward Brown, anyone interested in the subject should communicate, at 12, Hanover Square, London, W.) has now forty branches or depôts, at which 3,350,000 eggs were sold during 1904—an increase of nearly 700,000 over 1903. The value of the produce disposed of in 1904 was £15,400, and the average price obtained was a fraction over 1s. 1¼d. per dozen.

Of poultry the total value of the importations (dead or alive) into the United Kingdom during 1904 was £1,089,044, distributed as follows: From Russia, £343,761; Belgium, £248,552; France, £235,700; United States of America, £219,787; other countries, £41,244. In these figures we get further evidence of the aforesaid possibilities, for poultry fully shares with the other commodities here dealt with the honour of increased patronage from all classes of the community in Great Britain, and 'chickens' at a modest price would be still more popular with the average housewife, as an alternative to the eternal rotation of beef, mutton, pork, and veal, if she could be always sure that the birds she bought really were chickens, and worth the money she was asked for them. But here, again,

the advantages ought to be in favour of the British farmer or cottager as against, say, those producers in Russia who have been getting their £300,000 a year out of us for their notoriously poor qualities. As for the financial aspects of poultry-rearing for the market, these are well indicated in a letter by Mr. Edward Brown to *The Times*, in which he says:

> Experiments conducted in connection with the University College, Reading, have shown that chickens can be raised to a killing age (thirteen weeks) at a cost of 3d. to 3½d. per pound, or a total cost per bird, inclusive of initial cost of egg, of working incubators and brooders, and of food, of 7·71d. to 8·66d. If this can be accomplished upon a large scale, the margin is greater than in any other class of stock.

In the winter of 1904-1905 Mr. Brown contributed to *Poultry* an extremely interesting series of articles on the egg and poultry business as carried on in the Balkans, throwing much light on the way in which the big quantities handled in Continental countries are got together, for the purpose, mainly, of consignment elsewhere. In connection with the Budapest Co-operative Marketing Society—founded in 1897 in order to supply farmers' produce to the Budapest markets, thus establishing direct dealing between producers and consumers—Mr. Brown wrote that a very great amount of the work done relates to the sale of eggs. There are, it seems, 300 local societies connected with the central organization, and close on 12¾ million eggs have been handled in a single year, 75 per cent. of the sum total being exported. Much has also been done in the sale of poultry; but in this branch greater difficulties are experienced, owing to the irregularity of supply and the unevenness of quality.

At Szabadka, the 'capital' of Southern Hungary, Mr. Brown visited one of the four establishments there of Messrs. Hartmann and Conen, who are known as

EGG-COLLECTING DEPÔT AT STOKE FERRY, NORFOLK (GREAT EASTERN RAILWAY).

extensive traders in the London egg and poultry trade. In describing what he saw, Mr. Brown says:

One of the first things we did was to go into a huge building, divided into two compartments, and here were nearly 300 women and girls engaged at the same time in killing and plucking chickens. The sight was overwhelming. I have previously seen forty to fifty people, but I never came across a place where operations were being carried out to the same extent. These chickens were handled rapidly, and certainly the operators were marvellously expert. As soon as one bird was finished it was taken over by a man whose work was that of shaping, and the girl went off to get another bird without loss of any time. In the yard was standing a great waggon, which had just brought in a lot of fowls, and in that waggon were no fewer than 1,500 chickens. The plucking was well done, although somewhat rougher than we are accustomed to see in our best trade. Altogether, there are 400 people employed in the various establishments, and in order to keep them going this firm employs more than 100 collectors in different parts of Southern Hungary, and also buys largely from Servia. Most of the chickens were somewhat lean.

At this first establishment the work is chiefly confined to handling chickens, and the preservation and packing of eggs. We have small conception of the extent to which preservation is carried out. Here are built underground in cement-lined cellars huge cement tanks, each of which holds 160,000 eggs, and when we mention that there are no fewer than thirty-eight of these tanks, thus holding a total of 5,500,000 eggs, it will be seen that the amount of money invested in this trade is very large indeed. The tanks are filled in the spring and early summer, and the eggs sold in November and December. The process is entirely that by means of lime-water. The cellars are beautifully clean and sweet, and scarcely a speck of dust can be seen anywhere. The tanks are inspected almost daily, and such eggs as float to the top are immediately removed, as they are bad. When the time arrives for the sale of the eggs, they are taken out of the pickle, placed in wire baskets, and carried to a warmer room, where these baskets are stacked in tiers in front of a 'Blackman' fan, which, causing the air to pass rapidly, dries the shells very quickly. They are then tested for freshness, every egg passing through this process, and when we mention that there were nearly twenty women engaged in testing the eggs—for which purpose electric light is employed—it will be realized that a vast number can be handled per diem. . . . After the eggs are tested they are well rubbed, which gives them a polish, and removes any surplus particles of lime. They are then packed in the usual form in long cases, straw being almost entirely employed. At the time of our visit, in each case of eggs, top and bottom, were placed sheets of paper, as it is found that this is a

protection against cold. Of course, the eggs are graded, and we cannot speak too highly of the beautiful way in which they are packed.

The fattening of the birds is not undertaken at the establishment referred to above, but at the other three places, one of which is on the borders of the city, near the barracks, and this we visited in company with Mr. Hartmann. It is a huge place of about 60 or 70 acres, a large part of which is covered with buildings and fattening sheds. Here we were taken into cool chambers of great capacity, where both eggs and fowls are stored. Refrigerating machines made by Nicholson are employed, and everything is of the most modern character. There are mills of the best kind for preparing the food, and the whole place is lighted by electricity, which is generated upon the spot. Outside there are great ranges of sheds for fattening. In one large house, at the time of our visit, there were no fewer than 15,000 chickens undergoing the process at the same time. These are placed in cages five tiers high, and are fed entirely from troughs, crammers not being used. Outside are great ranges of houses for ducks and geese. These have open sides, and are practically covered yards. The ducks and geese are fed for ten or eleven days, as are the chickens, before they are killed. Turkeys are not fatted, as they are slaughtered as received from the farmers. Upon the day when we visited this establishment there were 2,000 or 3,000 guinea-fowls, and I must confess never before to have seen so many of these birds at one time. Large buildings are employed for killing the ducks, geese, and turkeys, all of which are slaughtered at this place, and the provision for the carrying out of the operations is upon a most complete scale. In fact, it is self-contained to the fullest degree, for not only is the food prepared upon the place, but there is machinery for cutting the wood for making the boxes. It is a huge manufactory for chicken flesh.

It would be impossible to describe, except at very great length, this wonderful place, certainly the largest which I have ever seen. A few figures, however, will indicate its magnitude. When in full operation no less than 1,500 litres (1,312½ quarts) of milk are used every day, and we may conceive what a large amount of grain is necessary by the quantity of birds to be fed off. It may be explained that maize and barley are chiefly used for this purpose. Upon the day of our visit 4,000 turkeys were killed, 5,000 geese, and 5,000 chickens. There were on hand at that time 30,000 geese, 20,000 ducks, and 50,000 chickens, all of which would be dead within the next week or ten days. As already explained, the turkeys are not kept here, but nearly 50,000 of these birds would be ready for despatch for the Christmas markets. So far as the quality of the birds was concerned, the chickens were moderate and very well fatted; ducks were fairly good; the geese very good; and the turkeys, on the whole, fair.

On leaving this place, we felt our brains almost reeling with the

extent of the operations, but there was uppermost in our minds admiration for the business qualities of any man who can supervise and control such a concern. During the twelve months the figures in fowls alone must run into millions, and the organizing power necessary to keep supplies coming forward must be very great indeed. It will fitly complete the above story when we say that a week before Christmas we saw a large number of these birds in London, where they found an excellent market. In order that they should arrive in proper time, a special train, consisting of twenty-eight waggons, was despatched from Szabadka to Ostend, and a specially chartered steamer brought the birds on the Sunday previous to Christmas from Ostend to London. The carriage alone for bringing these birds was in the neighbourhood of £5,000. It is not proposed to suggest for a single moment the necessity of our handling operations on anything like so great a scale as this, because, being near to our markets, it is to our advantage to get the produce much more rapidly into the hands of retailers. Still, it is interesting to see what has been done by men of business capacity, and with capital, for meeting the demands of our great population, and bringing the produce of other countries almost to our own doors.

Mr. Brown also deals with conditions in Servia. In regard to the egg export business carried on in Bulgaria, he quotes the following from the British Consular Report for 1902:

The export of eggs is now thoroughly organized, and the centre of exportation for Bulgaria is at Sofia. The merchants at Rustchuk land what comes from Silistria or Tutrucan, and send to Sofia by rail in waggon-loads. The eggs are packed in boxes containing 24 shocks of 60 eggs (1,440 eggs); 1 waggon-load contains from 100 to 105 boxes, and the price of 1 box franco Sofia is 65 francs. If the Sofia market will not give this price or what is demanded, the goods go on in the same truck to Vienna, Passau, or Antwerp, and thence to London or any intermediate station. The transport delay is calculated thus: to Sofia, 3 days; to Vienna, 8 days; to Antwerp, 13 days—always remaining in the same truck till the goods are sold. The cost from Sofia to London is £52 to £56 a truck, but when the eggs get to London they will be entered as Belgian produce.

These details are supplemented by Mr. Brown with an account of his visit to the establishment of Messrs. Laue, Funck and Co. at Sofia. A very substantial trade is done by the company, from 50,000 to 60,000

cases, each case containing 1,440 eggs, being sent away annually. The company have agents at all the nearer railway-stations, to receive eggs from people bringing them there; and supplies are also obtained from the Adrianople district of Turkey, and even from places nearer to Constantinople. The eggs are mostly small, and the prices paid are low, three being bought for the equivalent of 2d. in the winter, and five for 2d. in the summer. They are sent mostly to Germany and Austria, going in car-load lots to minimize carriage, and a certain proportion are received in London in due course; but, inasmuch as the eggs would be mostly a fortnight old when received at Sofia, would take another fortnight to reach London, would cost from £52 to £56 per truck for transport, and would be found (apart from quality) almost unsaleably small for the English market, it would not seem that the British farmer, with the opportunities open to him for disposing of his new-laid eggs, need be afraid of such competition as this. In fact, Mr. Brown says, in concluding his series of articles (which those who are specially interested in the subject should read for themselves in full):

Looking at the matter from the point of view of the farmers of our own land who are taking up poultry, I feel more strongly than ever that they have nothing to fear from foreign competition, either in connection with eggs or table poultry—at any rate for a long time to come. The fact that prices are low in each of the countries visited is more than compensated by the distance which supplies have to travel. Eggs can never come upon our markets in first-class condition, and they must always be the supplies which are sold at low rates. If our own people, by lack of organization in marketing, and by neglect of their opportunities, fail to take advantage of their nearness to the consuming centres, they have no one to blame but themselves. I venture to think that the poultry producers of the countries named would speedily adopt different methods if they had the same opportunities as we have here. At the present time, however, speed in marketing with respect to eggs is not realized; hence supplies are stale before they are even put upon the railways. When it is remembered that it costs upwards

of £50 per truck-load for eggs from Sofia to London, it will be realized that the advantages of cheapness are to a large extent more than compensated. The point which strikes me as of supreme importance to breeders on this side is that they should in some way endeavour to open up communication with Hungary, Servia, and Bulgaria, with a view to finding a market for stock birds. There is no question that in all parts of the world the eyes of those who are seeking to improve races of animals are always towards the United Kingdom, as we have the reputation—I think deservedly—of being among the most skilful breeders in the world, and it should be our object to use this reputation to the fullest extent; but there is a strange apathy on the part of breeders to adopt new methods.

By way of offering a concrete example as to the opportunities that are open to poultry-producers in our own country, I cannot do better than refer to what is being done at Heathfield and Uckfield, headquarters for many years of the Sussex chicken-fatting industry.

From these two stations on the London, Brighton, and South Coast Railway there were consigned to the London and provincial markets during 1904 no fewer than 2,159 tons of dead poultry—that is to say, 1,715 tons from Heathfield and 444 tons from Uckfield. Reckoning forty-five dozen to the ton, this means that the chickens despatched from the two stations in question during a single twelve months numbered 1,165,860. The largest consignments go to London for the Central and Leadenhall markets. These, for instance, took 1,370 of the 1,715 tons sent (by goods train) from Heathfield during 1904, the balance being forwarded (by passenger train) to various local markets, such as Brighton, which took 188 tons; Worthing, 16 tons; Eastbourne, 17 tons; St. Leonards, 11 tons; Tunbridge Wells, 35 tons, and so on. The despatches from Heathfield on an ordinary busy night will range from 9 tons (4,860 birds) to 13 tons (7,020 birds).

Such is the magnitude of the business that the local supply of live chickens fails entirely to meet the require-

ments of the fatters. They, or the 'higglers' working for them, on commission, go all over the counties of Sussex and Kent, and over parts of Surrey as well, buying up from farmers and cottagers such of their chickens as may have arrived at sufficient maturity to be ready for the final fatting off by the cramming machine. Many of the farmers and cottagers lay themselves out to supply the demand thus made, and the money they realize represents an acceptable addition to other sources of income. The raising of the chickens involves little or no trouble, while excellent prices are secured, especially when there is a shortage of local birds, and the breeders can get practically their own terms. On these occasions, at least, the breeders probably make more than the fatters. The two branches of business are generally kept distinct, and the policy of this arrangement will be appreciated by anyone who visits a fatting establishment on a fairly large scale, and sees the exacting nature of the substantial amount of work involved. That work, I may remark in passing, gives employment to a good number of hands, not only directly, in the various processes of cramming, stubbing, etc., but also indirectly, through the extensive demands made on the millers for chicken-meal.

When the local supplies—which produce the best birds—are exhausted, the fatters have to look further afield, and they obtain other English chickens from Norfolk, Gloucestershire, Wales, Carlisle, and elsewhere in England. But one of the grievances of the Sussex fatters is that even the whole of England cannot provide them with as many chickens, in such steady and regular quantities, as they want, and that for the greater part of their importations, to supplement the aforesaid local supplies, they must look to Ireland. The live chickens brought from Ireland to Heathfield alone

(exclusive of Uckfield), during 1904 represented, in fact, a total weight of 653 tons. Bred by the Irish peasantry, the chickens are taken by them to the markets at Kilkenny, Carlow, Baltinglass, Bagnalstown, Tullow, Carrick-on-Suir, Athy, etc., and there the birds are bought up by wholesale dealers, who despatch them at once to Heathfield or Uckfield, by way of either Waterford, New Milford, and the Great Western Railway, or Dublin (North Wall), Holyhead, and the London and North-Western Railway, which represent the 'quick' routes; or, alternatively, by the weekly Clyde boat from Waterford to Newhaven, whence they travel over the London, Brighton, and South Coast lines to their destination. Of the live Irish chickens received in 1904, 527 tons came by the quick routes, and 126 tons by the long sea route. The rates from any Irish inland town by the quick routes work out at £7 per ton; and from Waterford by boat to Newhaven, and thence by rail, £3 5s. per ton. Notwithstanding the difference in the rate, the majority of the birds are sent by the dearer routes, partly because they then arrive in better condition, and partly to suit the local markets, as the detention of the chickens for transport by the weekly boat would involve difficulties in regard to feeding, etc.

The effect, therefore, of the totally inadequate supplies of available chickens, not merely in the southern counties, but also throughout England and Wales, is that the Sussex industry is handicapped by the cost of importing Irish birds—and these, also, of a less desirable quality—to make up for both the local and the national deficiency. Nothing, in fact, would suit the Sussex fatters better than that farmers, small holders, cottagers, and others in England should breed chickens of suitable qualities for them to purchase and fatten off for the market.

There is certainly an opening for an extension of the fatting business itself. From what I saw in the Heathfield district, I should say there is no reason why the fatting industry should not be carried on as successfully by competent men, and under suitable conditions, in other parts of the country as it is in Sussex. I have heard it suggested that the 'soil' in the districts mentioned may be specially suitable; but, inasmuch as the birds pass direct from crate to pen, and from pen to killing-shed, their feet never touch the soil from the time they leave Ireland, to be fattened in Sussex, and thence sent to the market for sale as 'best Surrey chickens.' The fatting process, however, is obviously an art which must be thoroughly understood, which involves considerable labour, and for which, when conducted as a business, a substantial amount of capital is required. The average farmer, small holder, or cottager would therefore do better to leave this branch of the enterprise to specialists, and content himself with simply raising the chickens.

Poultry production, on the lines here recommended, might certainly be made to rank among the remunerative subsidiary industries of agricultural life, while the producers would probably find it more profitable—as it would certainly be much less trouble—to sell their lean birds to the fatter than to kill them off for sale while still in that condition. Small men who are breeders, but not fatters, and send little lots of poor-quality chickens to market to compete with the plumper birds from Heathfield or Uckfield, may well get discouraged, and say that poultry-raising does not pay. But in the production of chickens, for sale, not direct on the market, but to the fatters or their agents who collect them at the door, pay cash down, prepare them for the market, and take all risk, there are excellent oppor-

tunities for the 'small' man in England, especially when one thinks of those 650 tons of live birds which must be brought over to Heathfield from Ireland every year, not because Irish birds are preferred, but simply and solely because England cannot, or will not, produce all that are wanted.

What I have here said in regard to the Heathfield and Uckfield industry refers, of course, to poultry specially prepared for the market with the help of the 'cramming' machine. But though these birds may command the best market prices, especially as compared with ill-fed chickens with which no pains at all have been taken, there is a big market open for an intermediate type of bird, superior to the poor specimens, but less costly than those that have been artificially fattened. Nor are the possibilities of such a market being entirely neglected. On the contrary, there are certain districts, at least, where poultry production of this type has made considerable advance; and, as a case in point, I should like to place on record what was said to me by a gentleman at Exeter as being more or less significant of the awakening that is really going on in the country, notwithstanding the difficulties experienced by the Sussex fatters in getting the quantities they want:

> There is (said my authority) no comparison between the poultry in Devonshire to-day and the poultry of twenty years ago. We have a lecturer who goes through the county to explain the proper breeding, rearing, and feeding of poultry, and the farmers themselves are taking a great deal of interest in the matter, and are no longer leaving it entirely to their wives and servants. They see to getting the right sort of stock, and, instead of allowing the fowls to run about always in the immediate neighbourhood of the farm buildings, they buy portable houses, which can be moved half a mile off on to a stubble field or elsewhere, and then moved again, as necessary, so that the fowls have a good healthy run. In the result the birds get into excellent condition without any need for resorting to artificial fatting; indeed, in my opinion they are even

better eating than those that have undergone the cramming process. The effect, again, on the supply is that for every ten birds put on the market twenty years ago there are at least 100 to-day. But the local demand is so great that a very large proportion of the birds are not sent away at all. In fact, the demand seems to be constantly increasing, as people find that, provided the price is not too high, a plump young fowl is as economical as a small joint of meat.

CHAPTER XIII

AGRICULTURAL ORGANIZATION

THE second of the three phases of that transition in agriculture with which I am here dealing is the awakening that is taking place in regard to the value of combined effort. The details already given show clearly enough that there is a good deal of life still left in British agriculture, in spite of all the bad times suffered in the past, and of all the depressed conditions that may still remain; but prices—generally speaking—have fallen so low, competition has become so keen, and the margin of profit is often so narrow, that it becomes a matter of serious importance for the producer how he can get better returns (as the result either of higher prices or of improved marketing conditions), or, alternatively, how he can save on cost of production or cost of transport, and thus still improve his balance-sheet, even though the receipts remain the same as before. What are really the chances of his being able to secure these three results, or any one of them, by means of the combination about which so much is being talked? Will that combination, in fact, improve his chances of success in the directions, new or old, still open to him?

'The future of agriculture in this country,' it has well been said, 'depends on its economies as well as

upon new developments.' What direction the new developments are taking we have seen. When we come to look at the possible economies, what we find is that the British producer stands between two vast armies, each of which expects not only to live upon him, but to prosper at his expense. On the one hand there is an army of manufacturers, agents, and traders, who sell him the various things he requires for the purposes of production, too often exploiting his ignorance, his simplicity, or his isolation to their own advantage; on the other, there is an army of salesmen, traders, and middlemen of various ranks and grades, through whose hands his produce will pass before it reaches the consumer, each wanting to get out of it a profit for himself, without much consideration for the one on whom they seek to thrive. But so long as the British farmer is an individual unit he must expect to be thus exploited, and to have to buy retail while he sells wholesale. Unfortunately, too, even when he buys retail he does not always get good value for his money.

During a visit to some of the dairy districts in Yorkshire, I met a farmer who had very strong views on this particular question. 'The amount wasted by British farmers in their purchase of feeding-stuffs,' he said, 'would have sufficed to buy up all the land there is in the country,' and he went on to tell me a story that was full of significance. He had induced some other farmers in his neighbourhood to join him in forming a society, one of the main objects of which was to enable them to purchase their feeding-stuffs in large quantities, according to a guaranteed analysis which they were careful to check. One day his society refused acceptance from a manufacturer of 1,000 tons of cake, not of the stipulated quality, and, as a matter of curiosity, he asked the manufacturer: 'What shall

you do with it?' 'Oh,' was the reply, 'I shall send it to some place where they know nothing about analysis.'

In this same district I found there were dairy-farmers, not members of the society in question, who were spending £300 or £400 a year on cake—more than they paid for rent. They judged of the value of the cake by the effect it had on the animals (never troubling to ask for analyses, which they would not have understood), and they bought through some neighbour, who knew as little about analysis as they did themselves, but who got a commission from the manufacturers on the orders he secured.

In regard to manures, seeds, and other things besides, the victimizing of the British agriculturist has been carried on quite as relentlessly as in the case of feeding-stuffs. But, even when the commodities supplied are thoroughly honest, it stands to reason that a group of farmers, giving one big order, should be able to make better terms, especially if they can deal direct with a manufacturer, than if each bought separately through an agent or a shopkeeper.

It was considerations such as these, combined with the lessons taught by what was being done in other countries, that led to the formation, in April, 1901, of the Agricultural Organization Society, the headquarters of which are at Dacre House, Dacre Street, Westminster, S.W. The society has since had a very sturdy fight in endeavouring to overcome the prejudices of generations, in seeking to convert to new ideas and new methods a class of men notoriously averse to change, and in trying to place British agriculture itself, so far as circumstances permit, on a more thoroughly commercial and practical basis. It required courage to attempt such things as these, especially when others had failed before; but the

society has had excellent leaders in its president, Mr. R. A. Yerburgh; its chairman of committee, the Hon. T. A. Brassey; and its members of committee, including Lord Wenlock, Mr. C. Adeane, Mr. A. Brigstocke, Mr. N. Buxton, Mr. E. J. Cheney, the Rev. G. F. Eyre, Mr. H. C. Fairfax-Cholmeley, Mr. W. Fitzherbert-Brockholes, Colonel C. W. Long, Mr. Rouse Orlebar, and Mr. H. W. Wolff, with the most energetic of secretaries in Mr. J. Nugent Harris.

The progress made in the short time which has elapsed since the formation of this society is indicated by the fact that the number of local organizations affiliated with the central body in the autumn of 1905 was 110, the total being made up as follows: Societies established for the supply of requirements and sale of produce, 76; dairy, bottled milk, and cheese-making, 9; rural industries, 4; allotments and small holdings, 4; village credit societies, 11; auction market, 1; fruit-grading, 1; motor service societies, 2; County Pig Insurance Association (which already includes forty-four branches), 1; Agricultural Co-operative Federation, Limited, 1.*

There is, of course, still vast scope for the energies of the society, if the entire country is to be covered with a network of organization. The principle adopted, however, has been that of 'slow but sure'; care has been taken to make the foundations firm, solid, and comprehensive, and the rate of actual progress has been fully equal to the somewhat limited resources of a society that, as one conferring a real benefit on the agricultural interests of the country, is deserving of a

* In October, 1905, the formation of a Scottish Agricultural Organization Society was decided on at a meeting held in Dowell's Rooms, Edinburgh, under the presidency of Sir John Gilmour, Bart., various guarantors having put down their names for a total of £930 for the next three years.

much greater measure of public support and encouragement.

The Agricultural Organization Society itself is mainly a propagandist body, but in 1904 it formed an 'Advisory Business Department,' and in the autumn of 1905 this department was developed into an 'Agricultural Co-operative Federation,' the purpose of which is to group the orders of the different societies in the same way as the societies group the orders of their members. By this time, in fact, the difficulties at first experienced in regard to collective trading had been mainly surmounted. Manufacturers who, at the outset, refused to have any direct dealings with the societies are now surrendering to the logic of exceptionally big orders—as well they may, considering that the turnover of the various local bodies affiliated with the Agricultural Organization Society is already close on £250,000 a year.

The Agricultural Co-operative Federation now, in fact, gets wholesale merchants' prices and discounts, representing much more favourable terms than those on which the largest of individual farmers could purchase—even if such individual farmers were in every case able to deal with the manufacturers at all. On this point I may relate a story told to me by a certain 'large' farmer. He is a purchaser of feeding-stuffs to the value of over £1,000 a year, and he had bought for a long time through an agent. Becoming dissatisfied with that person, he applied to the manufacturers to be allowed to buy direct from them. They agreed, and fulfilled one order; but there was delay with the second. He then found that the agent had threatened the manufacturers that he would withdraw all his business from them if they persisted in direct dealings with the farmer in question. In the result the manu-

facturers surrendered to the agent, through whom the farmer had to send in his orders as before. Had the farmer in question been a member of an agricultural society for combined purchase, and had this society formed part of a powerful combination, it is certain that the agent would not have gained so easy a victory. In any case, the incident is significant as showing the position in which even a large farmer may be placed when he stands alone. It also shows how a large firm of manufacturers may be forced into a humiliating position by the action of an agent to whom they find themselves tied.

Under the new régime in agriculture a group of societies—twenty, thirty, or more in number—will each get to know from the members their individual requirements in respect, say, to fertilizers, and each will thus announce to the federation the total quantity it needs. Some will want as little as 10 tons, others will want 250 or 500 tons, so that a 1,000-ton order can soon be made up. On the strength of such an order as this, the federation has no difficulty in finding a manufacturer who is ready to concede the most favourable terms, delivering as may be required, for cash down. In the result the manufacturer is saved a great amount of trouble, and he avoids having to wait six or nine months for his money. As for the societies, the one that orders 10 tons buys at the same price as the one that orders 500; while the smallest individual purchaser in the group pays as little as the largest, and he further pays less in proportion than the buyer, however 'large,' who is not in the combination. The purchases, again, are made on the basis of a guaranteed analysis, and are subject to close supervision.

Not only have the leading British manufacturers of artificial manures been won over to the side of the

societies, but they recognise that the important educational results of the co-operative movement must lead to the agriculturists of the country having a keener appreciation of the value of scientific farming, in which case there will naturally be an increased demand for fertilizers. In one instance a prominent manufacturer has intimated his readiness to show practical sympathy with what is being done by supplying, free of charge, the manures necessary for the conduct of field experiments carried out with a view to promoting the technical knowledge of agriculturists. Such instances of sympathy as this, on the part of manufacturers, are the more remarkable because, under the influence of combination among agriculturists, the era of high-priced special manures is rapidly passing away, and one of lower rates (for commodities equally as good) is taking its place.

The federation is also able to obtain feeding-stuffs in bulk on the most advantageous terms. It has arranged with certain trustworthy firms to supply seeds of guaranteed quality and germinating power at rates substantially lower than those at which they could be purchased before; while in the purchase of agricultural implements and machinery it secures discounts ranging from 15 to 30 per cent. Everything, in fact, that a farmer may want is now to be obtained through the federation, and good results ought to follow from the facilities thus offered for securing that decrease in 'cost of production' which, on a small margin of profit, may make all the difference between a gain and a loss. The federation, however, has been formed so recently that at present certain of the societies are still buying on their own account.

Of the various local societies affiliated with the Agricultural Organization Society, the Eastern Counties

Farmers' Co-operative Association is deserving of special attention alike because of the rapidity of its development, and because it constitutes a combination especially of 'large' farmers, thus setting aside the general assumption that, while combination may be highly desirable from the point of view of small producers, there is no need for it in the operations of those who can already buy or sell in substantial quantities.

The association was registered so recently as March 23, 1904. The headquarters are at Ipswich, and on the occasion of my visit there, at the end of November, 1905, I learned that the association had then 300 members, who represented a total of 110,000 acres, and a total farming capital of from £700,000 to £800,000, the individual holdings ranging from 50 to 4,000 acres. I learned also that the association started with the hope of working up a turnover of £10,000 a year; that it secured one of £15,000 within the first twelve months; that a total of £50,000 or £60,000 was confidently expected for the second year; and that during the aforesaid month of November the business done was at the rate of £130,000 a year. Such had been the immediate outcome of twenty months' operations.

The objects of the association, as set forth in the registered rules, are:

> To carry on the industry or occupation of wholesale and retail dealers in agricultural requirements and produce, in dairy produce, eggs and poultry; commission agents; dealers in farm and garden produce, with power to purchase or hire pedigree stock; also general dealers in any other class of goods the committee may direct. The society may obtain and disseminate among its members useful information in order to foster, develop, and promote the agricultural organization movement in Great Britain upon the same successful lines which have obtained in Ireland; and may make advances to members for reproductive or economic purposes on security approved by the committee, and may do all things necessary or expedient for the accomplishing of its object.

The capital is raised by shares of the nominal value of 5s., and one share has to be taken for every 10 acres, or part of 10 acres, in the occupation of a person desirous of becoming a member. One-fourth of each share (1s. 3d.) is paid on application. The balance may be called up, but the association does not expect that any further call will be necessary 'for some time to come, if at all.' The business done, as indicated above, has, indeed, been effected on a called-up capital of only about £600, this sum having, it is said, 'proved ample for requirements.' A member incurs no liability beyond that of having to pay up, if called upon, the shares for which he has subscribed, so that the financial responsibilities of a member farming 100 acres do not exceed £2 10s. The first charge upon net profits is payment of interest at 5 per cent. on the paid-up capital, such interest being added to the share capital until the nominal value thereof has been attained. The average profit aimed at is 2½ per cent., that amount having been found sufficient to cover all working expenses and interest on share capital, and to allow a substantial sum to be placed to the reserve fund.

The association has a committee of management of twenty-one, including some of the largest and most advanced farmers of the district; and, as showing the practical interest they take in the work, I may mention that the attendance at a committee meeting, out of the total membership of twenty-one, is generally about nineteen. Then there is a trading committee of ten, whose members supervise the purchase of all requirements, and are careful to supply the highest quality of goods at the lowest possible price. There is also a finance committee of seven. The operations of the trading committee are supplemented by the services of two managers, one of whom takes charge of the

Ipswich depôt (conveniently situated in immediate proximity to the cattle-market), while the other devotes much of his time to attendance at various markets in the Eastern Counties—Ipswich, Saxmundham, Woodbridge, Beccles, and Norwich—where he meets members and transacts business with, or for, them, supplemented by visits to Mark Lane.

Although only a few examples are to be seen at the Ipswich depôt, the operations in regard to purchase for members embrace every possible requisite likely to be wanted either by an individual farmer or in the management of an estate. Thus, while a farmer can buy, through the association, agricultural machinery or implements, feeding-stuffs, seeds of all kinds, manures, coal, binder-twine, sacks, or anything else he wants (the goods being consigned to him direct from the makers, or, in the case of coal, from the collieries), the estate agent can procure, in the same way, forest-trees, glazed pipes, bricks, hardware, paint, and so on, in almost endless variety. The association has become, in fact, a sort of 'universal provider' of agricultural requisites, and it claims that, by purchasing in bulk, by knowing where and how to get the best terms, and by always paying cash, and getting cash from members within twenty-eight days, it can and does supply most things at a substantially cheaper rate than even 'large' farmers could purchase them for themselves, while offering, also, a greater guarantee in regard to quality.

One of the chief advantages it secures is in dealing direct with manufacturers. At first (as already indicated in connection with the Agricultural Organization Society) some difficulty was experienced in this respect, but certain manufacturers who would not recognise the Eastern Counties Association in 1904 were keen enough to get its orders in 1905. As regards the

farmers, they effect a substantial saving by obtaining their requirements through the association. Coal, for instance, is naturally got at a lower price direct from a colliery than through local dealers, and when the association takes 15 tons of binder-twine from a manufacturer on a single order, it can well offer advantages to members who have previously bought their 2, 3, or 5 cwt. at a time, according to requirements. There is all the difference, in such instances as these, between wholesale and retail, and no cause for surprise remains that even the largest of farmers in the Eastern Counties should have readily joined the association, or that the most far-seeing of manufacturers should be hastening to secure for themselves a business that promises to become exceptionally important. Such is the chairman's own conviction of the practical utility of the organization, that, in the course of the conversation I had with him at Ipswich, he said to me: 'I am convinced that if any working farmer in the Eastern Counties, farming anything up to 100 acres, were to do the whole of his business through the association, both buying and selling, he would save enough money to pay the larger proportion, if not the whole, of his rent.'

Nor have the benefits been shared exclusively by the members. The further effect of the competition represented by the association's proceedings has been to reduce prices generally, and non-members have been able to purchase goods from the ordinary traders at lower rates than they have ever done before, although in some instances they have not generally recognised that it is combination which has brought this about. Presumably, in the very unlikely event of the combination collapsing, the prices would at once be raised again.

In addition to purchasing for its members, the association sells for them. It acts in the capacity of commission agent; and its experts, keeping in close touch with the different markets, are often able to make much better bargains for the members than they could make for themselves. In this way the association sells a good deal of corn for members, some of whom, perhaps, are unable to go to market, or wish to be saved the trouble of so doing. In one period of seven weeks the association sold for its members 2,000 quarters of different kinds of corn. A good deal of seed is disposed of for them in like manner. Here, again, is an incident that offers food for reflection: A certain farmer, who is not a member, asked one of the managers to dispose of some blue peas for him, saying he would take 36s. a quarter for them. The manager sold them in London at 42s. a quarter. The farmer was paid 2s. a quarter over and above the price at which he had been willing to sell, and even then there was left for the association a profit of £6 15s., which (less commission) would also have gone into the farmer's pocket had he been a member. On still another occasion a cargo of beans was sold direct to a wholesale purchaser in Scotland, instead of to a local middleman, a benefit of 1s. to 2s. a quarter being thus secured for the members concerned.

Then, in the case of pigs, which are produced on a very large scale in Suffolk, the breeders at one time used to send their animals to the local markets in such quantities that the supply exceeded the demand, and prices would fall accordingly. The association avoids this result by engaging the services of a pig expert, who not only knows everything about pigs that is worth knowing, but keeps acquainted with the condition of all the leading pig-markets throughout the country, so

that he is much better qualified than the average member would be to say where any particular lot of animals should be sent, with the prospect of securing the best results. Such is the extension which this particular branch of the association's business has undergone that the turnover in pigs alone now exceeds £3,000 a month.

In these various ways not only has much already been done in the short time the association has been in existence, but almost every day opens out to the managers the possibility of new developments; and within the next few years the Eastern Counties Farmers' Co-operative Association should assume proportions of very considerable magnitude indeed. Meanwhile, it constitutes a valuable object-lesson for 'large' farmers in general. One theory I have seen propounded in regard to the migration of labourers from the country to the towns is that, owing to the present low prices, the farmers are unable to pay higher wages. If, it is said, the farmers could afford to give a higher wage, the labourers would stop. Should this be really the case, then all that the farmers require to do in order to solve the problem is to form themselves into co-operative associations on the lines of the one in the Eastern Counties.

Concerning another important society affiliated with the Agricultural Organization Society I shall speak in the chapter that follows.

CHAPTER XIV

BRANDSBY SHOWS THE WAY

In the Yorkshire village of Brandsby, situate fourteen miles from the city of York and five miles from Easingwold, there are being quietly worked out, in a most practical and effective manner, a number of problems closely connected with present-day conditions in British agriculture, including (1) the labour question, (2) the cottage question, (3) the possibility of promoting combination among farmers of a well-to-do type engaged in ordinary farming operations, and (4) the improvement of rural transport facilities, so that a locality situate some distance from a main line of railway can be assured regular, efficient, and economical communication therewith. How these various questions have been met by the combined efforts of the Squire of Brandsby, the local co-operative agricultural society, and the North-Eastern Railway Company, is the more worth the telling inasmuch as Brandsby is rapidly becoming a sort of Mecca for students of the 'forward' policy of agricultural progressives.

Brandsby parish comprises about 3,000 acres, and is practically owned by Mr. Hugh C. Fairfax-Cholmeley, only from 100 to 200 acres, besides the glebe, belonging to other persons. The population is some 300 in all. Generally speaking, the farms range from

100 to 300 acres, and several of these have been held by the same family on ordinary twelve months' agreements for generations. In one instance, at least, the farm has been so held since the early part of the eighteenth century. Some of the tenants on the estate are evidently men possessed of considerable capital, and there are signs of one or two among them having means independent of their farms.

A tradition of good farming has prevailed at Brandsby since the latter part of the eighteenth century. Early in the nineteenth a noted breeder of shorthorns, Mr. Samuel Wiley, lived on the estate, and the president to-day of the Brandsby Agricultural Trading Society, Mr. J. Maskill Strickland, is known as a very successful breeder of pedigree stock, both shorthorn cattle and Lincoln sheep.

The system of employment of farm-labour at Brandsby is similar to that which prevails generally in the North Riding of Yorkshire. The farmers engage men at 'hirings' for the year, or for six months, as the case may be, on the basis of so much wage in cash and board and lodging in the farmhouse. Under this system the land is cultivated mainly by a bachelor population, which migrates annually. From a social standpoint the system is distinctly bad. It offers no future to the farm-labourer worth considering; it leads, among other causes, to a scarcity of cottages, so that when a man wants to marry he has great difficulty in finding a place in which to live; and in most cases it keeps the head man at the farm, even when he might otherwise settle down in an establishment of his own. In the circumstances it is not surprising to learn that much trouble is now experienced in finding men who are willing to 'hire' as farm-labourers. They prefer to go to the towns.

Mr. Fairfax-Cholmeley was much struck by the evils of this system when, after succeeding to the estate in 1889, he took up his residence at Brandsby, and he began to think how they could best be met. In the course of time circumstances favoured him in the increasing difficulty in procuring farm-labour, and he then built a few cottages near the farmhouses, as an experiment in the way of settling married couples in their own dwellings, instead of depending on 'farm lads,' as they were called, living on the farm premises. He was the more induced to adopt this course by the fact that one or two existing cottages were occupied by men who had worked on certain farms for over ten years without changing places; and he believed that by judicious management it would be possible to get into cottages, in course of time, a permanent resident population of agricultural labourers.

The immediate outcome of this experiment has been the construction on the estate of eight cottages, of which one stands by itself, four are in pairs, and three are in a row. In designing these cottages Mr. Fairfax-Cholmeley paid particular regard to appearances and appropriateness to the surrounding countryside—a consideration, I may add, to which he has especially done full justice in his own most picturesque dwelling at Brandsby. In order, however, to secure economy as well, it was necessary, in the case of the cottages, to adhere to great simplicity—and even severity—of treatment. But here Mr. Fairfax-Cholmeley had the advice and assistance in architectural treatment of, at one time, Mr. Detmar Blow, and, subsequently, of Mr. Alfred H. Powell, both of whom are well known for their sympathetic application of the best spirit and traditions of English rural architecture tomodern estate buildings. Though certain details which are too often considered to add to the

'artistic effect' of cottages—and undoubtedly add to the cost of construction—have been omitted, Mr. Fairfax-Cholmeley holds that his plans are æsthetically sound; and this I may say, on my own account, after visiting some of the cottages in question, that they are admirably arranged and are much appreciated by the occupants, who naturally attach more importance to internal comfort than to external decoration.

I may add, in this connection, that the success of the experiment thus made at Brandsby has led Mr. Fairfax-Cholmeley to devise a model plan for labourers' cottages, which he can build for £150 each. They comprise a living-room, a good-sized scullery, and three bedrooms, each with a fireplace; but their designer has now decided that in future he will add a 'parlour' to the cottages. He is convinced, from his experience with cottagers, that there is real use for such a room. The labourer's wife takes pride in it as a place into which, say, the vicar's wife or other visitors can be taken; and, among other purposes, she finds it very convenient, when ironing, to put the white frocks there temporarily, instead of leaving them about in the living-room. The parlour is also of great service when the kitchen is too hot in the summer; when accommodation is wanted for an invalid, for a nurse, or for a bedridden member of the family; and also, in the event of death occurring in the household, as a place where the coffin may be placed pending the funeral. For these and other reasons a parlour is appreciated so much by the average labourer's wife that the Squire of Brandsby has decided in favour of adding one to any further cottages he may build, especially as he finds that the extra room can be arranged for with but a slight change in the plans and at only a slightly enhanced cost.

The provision of comfortable cottages is undoubtedly the first indispensable requisite in any well-considered scheme for inducing the labourer to stop on the land. It assures him home life. But there is the question of village life as well. In this direction Mr. Fairfax-Cholmeley established at Brandsby a reading-room, or village club, which is now managed entirely by the members. Any local resident is eligible for membership on payment of a subscription of one shilling per quarter. The club is located in one of a row of cottages, and, though quite unpretending in appearance, it fully answers the desired purpose as a centre for social converse. It is affiliated to the Working Men's Club and Institute Union, and is well supplied with literature from the lending library of that institution.

There is also at Brandsby a public bath-house, which was erected in commemoration of the Diamond Jubilee of Queen Victoria. The internal fittings were provided by public subscriptions after it had been handed over by Mr. Fairfax-Cholmeley to the Parish Council, which body now maintains it, at a very small cost to the local rates. There are in the small building two hot and cold water baths, available once a week for men, and once a week for women and children. No charge is made for their use, but the bathers have to provide their own soap and towels.

In these various directions there were introduced into the parish new conditions directly bearing on the daily life of the farm-labourers whom it was desirable to retain, and it was, indeed, these labourers who were mostly concerned therein. Of small holders (as distinct from the allotments held by the labourers themselves) there are only seven or eight on the estate, and these farm from 7 to 25 acres each, though all have some other occupation besides. One is a carrier, one is

postmaster, one a quarryman, two are blacksmiths, and two do carting and odd jobs for various employers. It is, in fact, assumed that, where general farming is followed, holdings of this size cannot be made to support a man and his family in the district in question unless they are supplemented by work in other directions.

We come now to the question of organization; and here I would venture to repeat what Mr. Fairfax-Cholmeley has been good enough to tell me in regard to his own experiences:

> When I first came to live at Brandsby, in 1890, it would have been difficult to find a more conservative and unprogressive place throughout England, or one where the circumstances were more uncongenial to the establishment of a co-operative agricultural society. The very fact of the comfortable circumstances of the leading farmers was in itself a hindrance, for this only made them the less ready to put themselves out by forsaking their old ways for new, where others less well to do, and perhaps pinched by necessity, might have been ready to clutch at any straw to save themselves from ruin. Their long establishment in a remote parish also tended to make them take unkindly to new ideas, and the size of their farming operations was sufficiently large to make the immediate advantages of combined purchase of comparatively small value, unless it meant something more than being able to buy a truckload at a time. Moreover, the competition of commercial agents in the local market at Easingwold was keen. The beginning of a new movement like agricultural co-operation in such circumstances was, therefore, particularly difficult, and one might fairly conclude that success here would warrant our expecting success in any other place.

The first stepping-stone to the conspicuous success that did finally reward persistent effort was the establishment of a co-operative dairy by a body then called 'The Brandsby Dairy Association, Limited.' This was in the early nineties. At that time the only other co-operative dairy in the country was the Skelldale Dairy, near Ripon, and the idea of co-operation for such purposes was practically unknown to the farmers of the country. The Brandsby district, too, was not

a dairy one, and it was, therefore, especially difficult to get the farmers to take any interest in the movement. The view of Mr. Fairfax-Cholmeley, however, was that, if they could once be won over to feel interest in any co-operative enterprise of their own, they would be familiarized with general principles and methods, and good results might be expected to follow.

When, subsequently, the Agricultural Organization Society (with which the Brandsby movement became affiliated) got into active operation, local societies began to spring up in different parts of the country, and the general advance then encouraged the Brandsby Dairy Association to engage a manager from Ireland, and undertake both the purchase of requirements for farmers and the sale of their produce. Great difficulty was experienced at first in persuading any traders in agricultural requisites to give the association trade terms. The idea of co-operation was still comparatively new, and the members of the association were regarded by the wholesale houses as mere amateurs. But, as the movement spread more and more, and the local trade in various commodities increased, it became obvious that the association would have to be taken seriously, and firms which had formerly declined to accept orders now began to solicit them.

The principles on which the Brandsby society acted in regard to co-operative purchase were thus explained to me by Mr. Fairfax-Cholmeley:

> When we began the purchase of farm requirements we concentrated our attention on the feeding-cake trade. Farmers in the district had been in the habit of buying their linseed and cotton cakes without very much knowledge of the way to test their value. Linseed cake, sold as '95 per cent. pure,' with the name of the merchant stamped on it, was taken very much on faith, with such rough tests as appearance or taste. A definite guarantee of the amount of oil and albuminoids contained was not considered, and was rarely given by the vendor. Hence, the comparative value of

different cakes was only arrived at in the most haphazard manner, and there is very little doubt that the farmers, as a whole, were not getting value for their money. Such a system, of course, was all in favour of the vendors of inferior cake, which could be sold at lower prices to cut out the better quality, though the lower price might be very much dearer in reality than the higher price of the better quality. I was very strong on this point, and worked hard to get the necessary information, and impress its importance upon the committee. In the result there is no doubt whatever that one of the greatest benefits the society has conferred on the district has been the general improvement of the quality of cake and other commodities now purchased by those dealing with the society, and even also by many others in the neighbourhood who have profited by the general improvement of the outside market. I consider this of far greater importance than any of the reductions in prices that have occurred.

By 1904 the dairy, which, as I have said, was started as a stepping-stone, had become the least important phase of the society's work, though the cream chiefly produced in the dairy was still sold in various towns. Besides the dairy the society now had a general store in Brandsby village, a warehouse rented from the North-Eastern Railway at Gilling Station, four miles distant, and a coal-cell at the same station. The warehouse was used for cake and other goods which might be taken on to Brandsby by carts conveying consignments to the railway, and otherwise returning empty.

In October, 1904, came the arrangement under which the North-Eastern Railway Company provided a motor-waggon service between their Tollerton station and Brandsby, for the conveyance, in one direction, of farmers' requirements from the railway, and, in the other direction, of farmers' produce for consignment by rail. But, as was explained at the time, the railway company could make this arrangement only with an organized body of farmers, and on the association undertaking, in their turn, (1) to erect a depôt at Brandsby, (2) to act as agents for the district, and (3) to superintend and work

up the traffic generally. The advantages, of course, were mutual. The farmers gained by having their cartage work done at substantially lower rates, and without wear and tear of horseflesh, and the railway company expected to gain an increase in traffic.

The business done by the motor-waggons (which serve intermediate villages as well) has, indeed, been substantial and most progressive. The increase in the volume of traffic carried is shown by the fact that the tonnage during the month of November, 1905, was 285, against 89 in the corresponding month of 1904. The experiment made by the North-Eastern Railway Company in putting on the road-motor service has thus had most encouraging results, and it has further shown that such services may serve an extremely useful purpose in the case of villages off the beaten track of rail communication, and not having sufficient traffic to warrant the building of a branch line of railway. The road-motor has now established itself as an economical but effective substitute, and other railway companies are adopting it in various parts of the country where conditions analogous to those at Brandsby exist.*

On the general question as to the rôle that the road-motor is likely to play in the future development of rural districts, by acting as a connecting-link between the railways and organized agricultural societies, I may quote the following from an article on 'The Motor in the Villages: How it may Influence Co-operation,'

* The Great Western Railway Company run a similar motor service in the Teme Valley (Worcestershire) in connection with a co-operative agricultural association formed there in conjunction with the Agricultural Organization Society, in order to work up and supervise the traffic. The service runs between Henwick Station and the association's depôts at Ham Bridge, Stamford Bridge, New Mill Bridge, Shelsley Walsh, and Clifton-on-Teme. The amount of traffic carried has exceeded expectations, and the farmers are greatly benefited by the arrangement.

published in the *Co-operative News* of December 2, 1905:

There is good reason to think that the motor may yet prove a potent agent in promoting that co-operative organization which is believed by many to be essential to the development of small holdings and the restoration of agricultural prosperity. We are not now thinking of the fashionable car . . . but of the industrial car, which is to solve some of our greatest transit problems, as they concern both passengers and goods. . . . In England many of the sparsely-populated regions which are off the main route are retarded in their development by their inaccessibility, and the lack of facilities for the rapid and prompt transmission of produce. . . . The chief hope of the producers of marketable commodities in such districts as these is centred in the self-propelled motor vehicle where there is no prospect of the construction of light railways. . . .

By its aid distances will be diminished and time will be saved; hamlets will be brought into touch with the villages, and the villages will be linked up with the towns. The lives of the people will be quickened, and new opportunities of usefulness opened out to them, and rural activities will be stimulated in a way which has not hitherto been possible. The countryside will be less isolated, and better worth living in, and its industries will be assisted so that its prosperity will increase. This is not a poetic dream, but a practical forecast. Already the signs of its realization are on every hand. . . .

But to reap the fullest advantage of the new means of transport, it is necessary that the producers in a district should organize themselves and co-operate to send their goods to market in the most economical way. One example will suffice. The North-Eastern Railway Company, which has shown itself very sympathetic towards the efforts of traders to consign in bulk, started a motor goods service between Tollerton Station and the village of Brandsby. This was done at the wish of the Brandsby Dairy and Trading Association, which receives the goods, organizes the traffic, and acts as forwarding agent. Other examples of similar working could be given, and many of the market-growers in the home counties have co-operated to this extent for the rapid and economical transport of their produce. Where the willingness is shown to make use of it sagaciously, the heavy motor must come as a boon and a blessing to agriculture and gardening, and to every other rural employment which depends on quick marketing. This may not be a complete cure for all the diseases of agriculture, but it must be beneficial in its effects, and may do much to restore rural activity. One of its immediate results will be to quicken the interest of the rural people in that practical co-operation in distribution, as well as in some forms of production, which has placed Holland and Denmark foremost among the producers of some of

our most valuable foodstuffs. And when the motor has built up, as it must build up in time, an interesting trade and expanded production, whereby many of those now derelict in the towns may be drawn back to industry and a wholesome life, its potentialities as an agent of economic and social progress will be in some measure realized.

A new department of the growing business of the Brandsby Association was added in April, 1905, when an old water-mill was rented for the grinding of corn for farm use. A considerable trade is done in household flour; large farmers, small farmers, and farm-labourers can alike purchase their coal at the society's depôt at lower rates than they ever paid before; in fact, almost everything a farmer requires, down to the beer for his harvesters, can be obtained from the new and commodious stores built at Brandsby in 1905, alongside the depôt already constructed for the accommodation of the motor-waggons and as a warehouse for the bulkier goods. The growth in the trade done in the agricultural department is sufficiently indicated by the following figures:

TRADE OF AGRICULTURAL DEPARTMENT.

	£	s.	d.		£	s.	d.
October, 1904 ...	69	1	11	October, 1905 ...	228	9	5
November, 1904 ...	157	12	7	November, 1905 ...	245	1	5

So the long years of struggle at Brandsby to place agricultural conditions there on a better footing, and especially to secure due acceptance for the principles of effective combination, have led to a degree of success on which Mr. Fairfax-Cholmeley, and those who have aided him in carrying on that struggle, may be warmly congratulated. The scheme, in its various phases, was well thought out from the first; it has been developed with much tact along essentially practical lines; and now that Brandsby has shown the way, other rural districts, similarly situated, should have no hesitation in following so excellent a lead.

THE BRANDSBY ROAD MOTOR AND TRAILER, NORTH-EASTERN RAILWAY.

CHAPTER XV

CO-OPERATIVE FRUIT-GRADING

THERE is still another example I should like to offer of the lines on which effective combination can be developed.

One of the weakest points in the system—or, rather, lack of system — generally followed by the British producer in sending his commodities to market is the absence of, as a rule, any attempt at effective grading. This fault is especially to be found in regard to fruit. Different qualities, of all shapes and sizes, and in all conditions, down (in the case of apples) to bruised windfalls, are often to be found mixed up together in the most haphazard fashion in a single box, barrel, or hamper. English fruit thus gets a bad name, and is avoided by large purchasers. On the other hand, foreign fruit — especially Canadian and American — arrives in such condition that, as the manager of a large hotel once said, 'If I give an order for a particular brand, I can depend on receiving as much as I want, all of the same sort, practically all of the same size, and all in good condition, without there being any need for me to look at it first. I would much rather buy English-grown fruit if I could,' added the gentleman in question, 'but, under present conditions, I am bound to prefer the supplies from abroad.'

In Canada so much importance is attached to the grading of apples, and the branding of packages with well-defined descriptive marks, that a Fruit Marks Act has been passed, which makes this system compulsory on all fruit exporters, severe penalties for neglect of the law being enacted. Canada, in fact, is even keener than the United States in her efforts to supply our markets with apples, and English growers will have to bestir themselves, and take prompt action in their own interests, if they want to do anything more than supply merely local markets.

Happily a very practical effort is being made to meet the situation by the establishment of the Hereford Co-operative Fruit-grading Society, Limited—a body whose objects and operations deserve the consideration of British fruit-growers in general. The formation of this society, in the autumn of 1905, was the outcome of two papers read by Mr. H. P. Bulmer and Mr. J. Read, before the Hereford Fruit-growers' Association, of which Mr. John Riley is president. In those papers emphasis was laid on the importance of securing some business organization which would enable the growers to get a better return on their fruit, especially in view of the fall in prices following on the glut of apples in 1904. The great object to be aimed at was the effecting of a system of grading, under which foreign or colonial competition could be met on its own lines; and in the result, the formation of a Co-operative Fruit-grading Society, in affiliation with the Agricultural Organization Society, was decided upon, Mr. H. P. Bulmer being elected to the position of chairman.

The special purposes which the society has in view are thus expressed on the prospectus that was issued:

To enable any person, from the smallest cottager to the largest fruit-grower, to dispose of his fruit at the minimum of expense and the maximum of profit.

To advertise and make known the excellence of Herefordshire fruit, by offering it for sale in a reliable and attractive form.

To classify the leading varieties of apples and pears (which have been proved to be best adapted for this county), and to grade these varieties into standard brands, according to their season. To recommend nurserymen and fruit-growers to propagate and grow these varieties as their main crop.

To offer to the best advantage the many excellent but little known, named and unnamed, varieties of cooking and dessert apples of this county, by packing and marking them in distinct grades of size and quality.

To bring the apples of different growers together, so as to make up large consignments for market of uniform variety and grade.*

These aims, it will be seen, are essentially practical, and they are being carried out on very practical lines. The members send their apples to the society's depôt at Hereford, and the different kinds of fruit are there divided into four classes for each variety—'A1,' which represent the largest size; '1st,' medium size; '2nd,' small size; and 'cullings,' the last-mentioned being those that cannot be sent away as graded apples at all. When the grading process has been completed, the quantities which each member has supplied to each class are credited to him in the books, and the fruit received is then placed in felt-lined hampers, according to variety and class, the identity of the individual lots from different senders being no longer maintained. From these hampers the apples are taken, and, after being wrapped each one in a separate paper, they are packed in 14, 28, or 56 pound boxes, in such a way that, the contents of any one box being all of the same size, they present a series of straight lines in either direction. That, at least, was the case with various boxes which the manager, Mr. Press, opened for my inspection at the society's depôt.

* The society has also undertaken the combined purchase of necessaries, including fruit-trees, for members. Not only do the members gain a further advantage, but employment is found for the staff in the 'off' season, and the organization is thus kept together better.

The sale of the fruit is undertaken by the society, which disposes of it to salesmen, shopkeepers, or private customers, and settles with the members according to the average price realized each week on the particular class and variety of fruit to which their supplies have contributed. The members also have the prospect of a bonus at the end of the season, according to the value of the fruit sent in by them. The year's profits, after payment of working expenses, will also be divided among the members on the same basis.

From a marketing point of view this system would seem to offer all the advantages in respect to grading that the Canadian and other over-seas growers have secured for themselves. It should, besides, enable the society to offer to wholesale purchasers larger and more regular lots of a particular size and variety of fruit than the average individual British grower could control, so that in this way the home-grown fruit ought to secure a much better position on the market. Then, the smaller growers, and especially the cottagers, should derive much benefit from the new arrangements. However small the quantity of any particular variety they may send in, it will be added to the collection in one or other of the various classes for that variety, and will share with the largest contributions of all in getting the best market price. Hitherto the small growers and cottagers (and practically everyone in the Hereford district grows fruit) have been at the mercy of local dealers, who buy up their little lots at the door, pay cash down, and then, getting a profit for themselves, dispose of the fruit to the same people (more or less) as those to whom the Co-operative Grading Society would sell.

Although absolutely in its infancy, and although

various initial difficulties—including strong prejudices on the part of some of the growers—have had to be overcome, the society has made a very good start. Its first consignment of fruit was not despatched until September 17, 1905, yet by the end of the following November the boxes sent away represented a total of 8,500, the weight of fruit sold being 170 tons. Much more, I was told, could have been disposed of, if larger supplies had been available.

The Great Western Railway Company have entered cordially into the scheme, and have erected, at a cost of £1,000, for the use of the society, a commodious two-story depôt immediately adjoining the goods siding at Whitecross Bridge. For this depôt the society will pay a rental of £35 a year. The arrangement is one that offers obvious advantages both to the society and to the railway company; but the fact that it should have been made is sufficiently suggestive of the community of interest between railways and traders.*

* As a further example of what can be done when the railways and the traders act together in their mutual interests, I might refer to the operations of the Newport and District Agricultural Co-operative Trading Society, Limited. This society was formed in the autumn of 1904 by farmers on the estate of the Duke of Sutherland in and around Newport (Salop), with the main idea of effecting economies alike by purchasing agricultural necessaries in wholesale lots, and by having them carried on the railway at the lower rates available for large as compared with small quantities. The initial difficulty lay in the provision of a depôt in which the goods purchased by the society in bulk could be warehoused until disposed of among the members; but this difficulty was surmounted by the London and North-Western Railway Company undertaking to erect, at their own cost, a depôt immediately adjoining their Newport Station, and letting it to the society at a moderate rental. The depôt, a building about 25 feet by 18 feet, was duly constructed, and the society, of which the Duke of Sutherland is president and Mr. W. E. Stamer chairman of committee, has had a successful start in the first year of its operations. At the end of 1905 it had seventy-nine members, and the paid-up share capital was £340; but arrangements had been made with the bank for an overdraft. The trading done during the year amounted to over £7,000, and the net

The future of this very promising society deserves to be closely watched, inasmuch as the course adopted is so obviously a step in the right direction, if the fruit-growers of the country are to be placed in a better position to compete with those colonial and foreign experts in the art of marketing who are now threatening to supplant them practically altogether.

---

profit thereon was £163, allowing of a bonus equal to 1s. 6d. per ton on their purchases being given to members, in addition to the advantages they had already obtained in buying at the outset at lower prices. Of the depôt built for the society by the railway company the annual report says that it 'more than proved its utility and convenience, stock being always in hand to meet the requirements of members.' The building of similar depôts at other railway-stations in the district is now under consideration. Meanwhile the members of the society are so satisfied that they are appointing a paid secretary, and taking larger and better offices for their headquarters in the town.

CHAPTER XVI

MARKETING PROBLEMS

COULD any possible economics in the cost of production be supplemented by increased returns from sales, even assuming that the prices paid by the consumer remain the same?

One comes here to a whole range of complicated problems in respect to marketing conditions—problems that represent the greatest difficulties of the New Agriculture movement. So much is this the case that co-operative sale is now generally regarded as the goal, rather than the starting-point, of that movement. It is with co-operative purchase of agricultural necessaries that the commencement is invariably made, and not until the lessons to be derived therefrom have been well learned can the second and more difficult stage be entered upon. Past conditions of British agriculture and present conditions of our national food-supply have combined to raise up merchants, agents, and middlemen of all types, who do not produce, but who import, buy, sell, and distribute, representing, it may be, quite a number of profits that are gained between those who grow and those who consume. This vast army expects not only to live, but to prosper and grow rich—if it can—on these intermediate profits, and it has already lived so long and in many instances become

so powerful, and possessed itself of vested interests so great, that the British agriculturists who would abolish it amid cries of 'Down with the middleman!' have got a very stiff job before them.

The special problem as to the precise nature of the rôle fulfilled by the Distributor, as an intermediary between the Producer and the Consumer, is one that may safely be left to the Professors of Economics. Avoiding any formal disquisition on matters of theory, and coming at once to the point, I would say that what Producer and Consumer may well ask for is that the Distributor element should be either abolished altogether or, alternatively, kept to an irreducible *minimum*. If it cannot be abolished, then at least let 'Distributor' be in the singular, rather than allowed to develop into a word indicating 'multitude' or 'number.'

It is obvious, however, that no hard-and-fast line can be laid down. No general principle can be established which will apply equally well to all the different agricultural or kindred industries. Each must be considered separately. I have shown how British fruit-growers now deal direct with the British jam-makers, cutting out the market people on whom the jam-maker had to rely so long as the home fruit-grower did not produce in sufficiently large quantities. I have shown, also, how the milk-producers, by means of an effective organization, are seeking to avoid the wholesale man, and open up direct relations with the retailer. Here it is a case of dispensing with one Distributor—who is regarded as unnecessary—but accepting the other, who fulfils a useful rôle which the Producer does not care to undertake himself. I have shown how at Evesham the aim is not only to avoid the London markets, but to avoid even the large provincial

markets, by selling at once to shopkeepers or others in small towns which previously drew their supplies from the large markets. Here the Distributor element is certainly brought to the irreducible *minimum*—unless the Evesham growers attempt the formidable task of opening co-operative retail shops in every town in the United Kingdom to which their produce is now consigned! It is true that even the shopkeeper is cut out by the system under which farm produce is forwarded direct from farm to householder. But this system must have only a qualified success, because it is obvious that the householder cannot gauge the household requirements with such exactitude that the box from the country will always contain the precise quantities desired; and if the local shopkeeper is abolished, how will the additional supplies that are wanted be obtained on the spur of the moment?

Whether or not, therefore, the Distributor should be recognised, and if so, to what extent, are matters that depend upon the circumstances of each particular case. There are certain branches of agricultural production in which the 'wholesale' as well as the 'retail' element will certainly have to be accepted as unavoidable, if not actually desirable; and it is worth considering whether in some instances, at least, combination might not be more effective if it aimed at putting large supplies into the hands of a wholesale middleman, who controls a big trade, and can dispose of large quantities with a minimum of cost and trouble, instead of seeking to abolish him in his capacity of Distributor-in-Chief. Certain it is that while individual farmers are sending off separate boxes to separate householders, wholesale firms whose turnover may run into several millions a year are importing butter, bacon, eggs, or other commodities by the shipload, and having it carried past

the farmers' doors by the trainload. Obviously, if the farmers want to meet foreign competition such as this, the primary necessity is that they should be able to supply the same produce in equal quantities, and not content themselves with simply forwarding boxes to householders.

To this end organization is essential. The produce of a given number of farmers or others must be so collected, graded, and packed, that the wholesale dealer will know he can always get the quantities he wants, the qualities he wants, and the style of packing he wants. Accustomed to buying foreign produce according to 'brands,' so that any possible amount he receives will be all of identically the same character and quality, he requires to be assured the same advantages when he buys British produce, instead of having to examine separately a score or fifty different lots each time he gives a big order.

It is organization of this kind which has succeeded so well in foreign countries, and especially on the Continent. It may be represented either by a co-operative society or by some firm which undertakes to do the work on its own account. In either case there is effective organization, with this difference: where there is a co-operative society the farmers are their own collector-distributor, and save an intermediate profit; where there is a private firm, those who constitute it naturally expect a good return for themselves, though affording possibly an outlet for the producers which the latter might not, individually, and left to their own resources, be able to secure. But there is this further important difference between the two systems: if the producers form a society, and act as their own middlemen, they have a better chance of controlling the market, whereas if they sell to the

collecting firm they may have to take, in effect, what is offered them.

It is this possibility of the producer securing a greater control of the market that is really at the root of the whole matter. Compared with this essentially practical question, much of what is said concerning the rôle of the Distributor is of purely academical interest.

For an example of what I mean in this connection, I would refer to what has been done by the colony of Dutch market-gardeners settled in the Westland district of the province of South Holland. This colony consists of about 1,400 growers, who occupy between them some 5,200 acres, of which close on 125 acres are covered with glass. Ten years ago the wholesale dealers of Rotterdam, Amsterdam, The Hague, and other towns, used to send their agents to Westland, to buy up the produce from the growers, who, not being well acquainted with the condition of the markets, or wanting to save themselves further trouble, would often let their stuff go for a much lower price than they should have had. Alternatively, they contracted in advance to sell their entire stock at a very low figure to a dealer who tempted them with a sum down as an instalment, at a time, perhaps, when they were in want of money. So, in one way or the other, the growers were in the hands of the middlemen, while, to make their position worse, many of them were in the habit either of not grading their fruit or vegetables properly, or of putting poor qualities at the bottom of a hamper and good qualities only on the top.

To remedy this state of things the growers formed themselves into an association, known as 'Westland,' and set up local co-operative auction marts, to which they pledged themselves to send the whole of their produce. They then gave notice to the wholesale dealers

that in future nothing would be sold to them direct by the growers, and anything they wanted would have to be bought at the auction marts. The position of auctioneer at these marts was generally conferred on the grower in the district who was held in the greatest esteem. It brought no fee or commission of any sort, but was regarded as a post of much honour.

The wholesale dealers were left with no alternative but to purchase at these marts, and they accepted a situation which had its advantages even for them, in the way of bringing supplies to one recognised spot, although they were now not always able to make such good bargains as of old. For the growers the important result was that the control of the market passed from the hands of the middlemen into their own. This fact alone was sufficient to secure for them better prices than they had had before. Those prices rose still higher when the combination organized a rigid system of inspection with a view to guaranteeing that the produce offered for sale at the marts was of good quality, properly graded, and of the stated weight, penalties being imposed on any of the members who offended in any one of these directions. So, concurrently with the better prices, the produce got a better name, and at the international exhibition of food and vegetables held at Düsseldorf in 1904 nearly all the first prizes for grapes, other fruits, and vegetables, were secured by Westlandia in fair and open competition with some of the best growers of Germany, France, Belgium, and other countries.

Now the essence of this story is that the Producers did not seek to abolish the Middleman-distributor: they controlled him, and with that they have been well satisfied. They secured better prices, under improved conditions, for a better class of produce; and though

they still left the middleman to get a profit as well, the final arrangement was one that suited them better than if they had sought to carry on the trade themselves in the different towns where the eventual consumers dwelt.

Let us compare this story of progress in Holland with the conditions that exist in Devonshire to-day. A 'moor' farmer from the Exmoor district will drive ten or twelve miles to a market town, such as Exeter, Honiton, Okehampton, or Newton Abbot, taking with him, say, four or five fowls, two dozen rabbits,* three dozen eggs, six or eight pounds of butter, and so on, to dispose of to some local dealer who is either a shopkeeper or will be found in the market. The local dealer makes a mental calculation of what is the least amount the farmer will be likely to let the things go for, and he puts down the money, which the farmer pockets —perhaps, if the dealer is a shopkeeper, spending a certain proportion of it with him in buying supplies. The dealer sells the produce again to his own local customers, if he can, otherwise sending it off in bulk to the London or other markets.

So profitable, apparently, is this particular kind of business for the middleman that an active competition for the moor farmers' supplies has sprung up between the Devonshire and the London dealers. The latter find it worth their while to make special journeys to Devonshire on market-days in order to effect their purchases, and, to this end, they will even go a short

* Rabbits constitute a noteworthy item in the produce from Devonshire. During the season commencing September, 1904, and ending April, 1905, no fewer than 1,724 tons of rabbits were consigned by the Great Western Railway from the Plymouth and Exeter districts. On the other hand, the imports of dead rabbits into the United Kingdom during 1904 represented a total weight of 26,684 tons, and a value of over £780,000.

distance beyond the boundaries of such a town as Honiton, and wait about on the main roads to intercept the farmers as they drive in, bargaining with them for their whole stock before they have time to go to the resident traders.

This practice on the part of the men from London somewhat interferes with the business of the local shopkeepers, who are developing an important 'hamper' trade with householders in various parts of the country. But the moor farmer himself does not seem to have realized that the local shopkeeper and the London trader are alike exploiting him to their personal advantage, and that a little effective combination on the part of himself and his fellow-producers would enable them to organize their marketing on better lines, and obtain better prices for their commodities. They keep to their present system because it is the one followed by their fathers, and the one that they themselves were born into, while the average Devonshire farmer has as great a dread of letting his neighbour know what he is doing, in the way of business, as any agriculturist in the country. Grumble, no doubt, they do at the 'hard times' and the 'hard life' and the conditions of British agriculture in general; but the effort they would require to make in order to change their conditions, and get a fairer share of profits now absorbed by middlemen dealers, would take them too far beyond the range of their habits and ways of thought. It doubtless seems much easier to follow the lines of least resistance, and content themselves with grumbling, while the shrewd traders who live upon them grow rich—more or less—at their expense.

The superiority of the Westland system over the Devonshire practice is obvious, though I must admit that an expedient adopted so successfully in Holland

would not necessarily be suited to the whole of our English conditions. Market-gardening at Evesham, for instance, offers many contrasts to market-gardening in Westland. The fact of forty varieties of vegetables, fruit, and flowers being grown; the widely different qualities of each variety produced by individual growers according to the variations in soil and cultivation; the practical impossibility of bringing to one common centre the enormous quantities of perishables handled, instead of dealing with them in many different places at the same time; the extremely wide-spread distribution that takes place; and the hopelessness of expecting that every dealer now getting produce from Evesham would send his agent there to buy, are conditions that, combined with the mutual jealousies of the producers, offer much greater difficulties in the way of co-operative sale at Evesham than is the case in Westland, where the varieties are fewer in number, the qualities more even, and the whole business more concentrated. The setting up, also, of the two auction marts at Evesham, private though they be, leaves the growers much less at the mercy of agents, salesmen, and buyers than they were before.

All the same, it might be possible to adapt the main principle of the Westland system to local conditions in some of the other market-gardening districts in England, especially where the growers form convenient groups, cultivate mainly a few special crops, and produce on a smaller scale than is the case at Evesham. Even if the organized body did not actually handle, grade, and sell the produce grown, it might perform a most useful function in helping to put the producers into more direct touch with the retailers, instead of leaving those retailers to go to the wholesale market to buy produce that may already have passed through or

near their suburbs, and, further, not only undergone more handling thereby (thus losing in freshness), but accumulated a collection of charges in the form of market tolls, salesmen's commission, and cost of extra transport, which the eventual purchaser must make good.

The relations of the producers to the salesmen represent a phase of the general question which an inquirer into agricultural conditions will find constantly being raised, wherever he may go. It is almost as much a stock subject with British fruit and vegetable growers as the weather itself. Opinions certainly vary. I have heard much that is complimentary said concerning salesmen, but I have heard much more that indicated dissatisfaction. It may be that undeserved reflections are too often made on the general body because of the faults and shortcomings of the black sheep who are, or have been, among them; it may be, also, that the salesmen get the blame for low prices due to market conditions entirely beyond their own control. But one cannot resist the force of the bitter experiences of growers who have had the misfortune of dealing with unscrupulous men, and been 'heavily hit' in consequence; nor can it be denied that, under existing conditions, it is very much a matter of chance whether a grower gets into touch with an honest or a dishonest salesman. 'I consign all my stuff,' a Lincolnshire grower once said to me, 'to a salesman who is thoroughly trustworthy. But I lost thousands of pounds before I found him.' Another grower told me that, having reason to suspect he was not getting a proper return from the salesman to whom he had been consigning, he accompanied his next lot, on the following day, disposed of it himself, and, under precisely the same market conditions, got over 30 per cent. above the amount previously remitted to him.

There is no need, however, for me to adduce all the specific instances that have been brought to my knowledge in different parts of the country, because the proposition that effective organization on the part of the producers should, among other things, lead to their being far less 'at the mercy' of salesmen and commission agents than is possible under existing conditions needs no arguments for its establishment. Combination would, in fact, where it is really practicable, not only enable them to group and to grade their consignments—this being the first step towards better market prices—but would decrease the risk of having dealings with untrustworthy men, and increase the probability of their getting the prices to which they were entitled In any case, what is wanted is that the producer himself should gain more control over the market, reduce the middleman element to the lowest practicable proportions, and secure alike a reasonable guarantee of honest trading, better returns, and less risk of falling into the hands of individuals who may be financially unsound, if not a good deal worse. There is certainly no more effective way of realizing these conditions than by combined effort.

Speaking generally, co-operative sale, and the greater control of the market following thereon, are secured much more readily when applied to commodities of a particular kind produced in large quantities, and mainly of uniform quality, allowing of the different lots being mixed together without material loss of character. Corn, factory-made butter, milk, eggs, bacon, apples, plums and other fruits, for example, lend themselves more to grouping, grading, or collective sale than miscellaneous lots of garden produce, for which urgency of despatch is essential. But, where the system can be adopted, the benefits are undeniable, alike for 'small'

men and 'large.' In regard to the selling of corn, for instance, if a body of small growers formed themselves into a co-operative society, and entrusted their business to a joint representative, they would save the great loss of time and money involved in going to market themselves, and they would avoid the risk of a fall of prices when a collection of individuals, forced by their own financial position to sell, surrounded a buyer only too ready to take advantage of them and keep down the price; whereas, if they remained away, and left the business to be done by a joint representative, the buyers would have to go to that one man, and better terms would be got. As for the large growers, their special interest in such a combination would lie in the fact that the 'market price,' according to which they sell, would have been practically fixed by the rates already accepted by the 'small' men forced to take such terms as they could get. In other words, a combination of producers would be able at least to control the local market—even if they did not make still better terms by doing a substantial deal direct elsewhere—and the 'large' men would benefit equally, in proportion, with the 'small.' The actual 'consumer' would pay no more, but the intermediate profits would be reduced, and the better returns from the sales (especially when they could be added to a reduced cost of production) should effect a material improvement in the position of the producer.

CHAPTER XVII

TRANSPORT QUESTIONS

CAN the economies of which I have spoken be further secured in connection with the cost of transport of agricultural commodities?

The obvious reply to this inquiry is, 'Yes, if the British producers would bulk their consignments in the same way as the foreigners do.' But I wish to be perfectly fair to our own agriculturists, and I think it only right to point out that the general conditions in this country differ somewhat from those in Continental lands whence we obtain our big imports, and that any comparison made is not necessarily a comparison of like with like.

Those said big imports have two essential characteristics: (1) Collected from over a wide area, they come through in trainload and shipload lots to one chief centre of distribution; and (2) they consist mainly (though not exclusively) of commodities in regard to which extreme 'urgency'—from the point of view of maintaining their freshness—is not absolutely essential. Bearing these factors in mind and applying them to our own normal conditions, various considerations arise.

In the first place, any collecting area for agricultural produce in this country would necessarily be much smaller than is the case on the Continent, and it would

hardly be possible to make up here the very considerable quantities that are handled there, even if it were thought desirable to keep back the home produce so that substantial consignments could be gathered together, instead of sending to market in smaller and more frequent lots.

In the next place, it does not follow that so large a proportion of the British produce would go to one great centre—London, Manchester, or Glasgow—for distribution, as is necessarily the case with the imported produce. In the United Kingdom, as I have already shown, the tendency is more and more to consign home-grown produce direct from the point of production to the town where the commodity will be consumed. The Southern and Western counties may still consign mainly to London, and, as I have also said, large quantities will more especially be received there by road from places within the fifteen or twenty mile radius, so that here transport by rail is not resorted to at all. But Midland, Eastern, and Northern centres prefer, mainly, to be their own distributors, instead of leaving that part of the business to be done entirely by London.

This point was well brought out by Mr. O. R. H. Bury, General Manager of the Great Northern Railway Company, in the evidence he gave before the Departmental Committee on the carriage of agricultural produce. Replying to a complaint made by Mr. Dennis that he could not get any lower rates for very large quantities of potatoes, Mr. Bury said:

> Mr. Dennis has a large potato traffic from Kirton Station; but I find that, although he sent, during the year 1904, 1,993 waggons of traffic, containing 6,657 tons—an average of 3 tons 6 cwts. 3 qrs. on a waggon—he consigned to 250 different stations. Obviously, there is no advantage in that. If he is to come and talk about his very big loads, they must go to the same place.

With such widespread distribution from the actual producing centre as that which is here indicated, we get evidence of conditions very different from those under which, say, trainloads of foreign produce are made up for one great distributing centre in England or Scotland; and what is done at Kirton is going on also in Cornwall, at Evesham, at Wisbech, and many other places. But, the higher scale of payment on small, or comparatively small, lots to the consuming centre direct, as compared with the smaller rates available for big combined loads to what would be merely a point for intermediary distribution, is probably made up for by the better returns the producers or traders should secure under the system they have found it to their advantage to adopt.

While, therefore, on the one hand, this difference in conditions is not always borne in mind, I would venture to say, even by railway managers in their criticisms of the British farmer and his ways, on the other hand the farmer himself has obviously no reason for complaint if, operating on wholly different lines, he is charged retail rates on a practically retail business, while the foreigner gets wholesale rates on what, until the main distributing centre here is reached, is essentially a wholesale business.*

Then, the bacon that Denmark sends to London viâ Parkeston at the rate of 50,000 tons a year; the foreign butter that goes from Leith Docks to Glasgow in 50-ton

* Replying to certain complaints made before the Departmental Committee on alleged preferential railway rates, as to the difference in the rates for English and foreign grain respectively, Sir George Gibb, then General Manager of the North-Eastern Railway Company, said in his evidence on July 5, 1905, that while in 1904 the company carried 269,222 tons of foreign grain from two points—the ports of Hull and Newcastle—the 265,893 tons of English grain which they carried in the same year were collected by them at no fewer than 467 separate points on the system.

lots each day; or the many waggon-loads of chilled beef arriving from America viâ Southampton, could be kept back, if necessary, for the purpose of grouping into large consignments, much better than the new milk, the soft fruit, the green vegetables, the new-laid eggs, or the fresh-killed meat for which the British producer wants the quickest and best service the railways can give him. So his desire both to avoid any possible glut at a great distributing centre and to secure the best possible returns is supplemented by the need of getting his produce to market with the utmost despatch; and, in these circumstances, it may be confessed that the British farmer cannot be expected to do all that the foreigner does in the way of supplying the railway companies with really big loads and securing the lower scales of rates chargeable thereon.

But, while all this is perfectly true, the fact remains that the British farmer might still do a great deal more than he does, even within the comparatively restricted range of his national possibilities and the exigencies of his special marketing conditions. The railways have an arrangement under which (1) a group of senders may bulk their lots to a certain town in the name of one consignor, delivery being effected as desired; or (2) they may all forward to one consignee, the one consignor settling with the railway company in the former case, and the one consignee in the other. The most favourable rates for a large consignment would thus be secured, and a considerable saving effected in many instances.

I happened to mention this subject to the chief clerk at a country station one evening, and he at once took down his books, turned to a certain page, and said:

You see that on this one day in June six senders all forwarded consignments by the same train to the same salesman at Man-

chester. You will see from the figures the amounts they paid on those consignments. Had they grouped their separate lots into one, they would have saved just £7 10s., and a saving such as that might make all the difference in their returns. Though it may not have been my place to speak, I have told them plainly what they might do if they would. But the growers here are so jealous of one another that there seems to be no possible chance of their acting together.

In point of fact, very little advantage indeed has been taken by farmers and producers of the concession referred to above, though it may very well happen that a salesman will advise a number of senders in one district to leave him to pay the carriage at his end, in which case he constitutes the one consignee, and pays on a lower scale for the sum total of the consignments received. Whether or not the growers are likely to gain any advantage, or whether or not it is more likely that the salesman charges against each sender the amount that person would have paid had he settled with the railway company at once for his own particular lot (the salesman thus having a further profit), I leave my readers to say for themselves.

What can be done in the way of securing greater economy in rail transport is very well shown in reference to that dead-poultry business at Heathfield and Uckfield, of which I have already spoken in an earlier chapter. All that seems to be needed is just a little effective organization on the part either of a co-operative body or of private enterprise. In these particular instances it is private enterprise to which the results attained are due.

At Heathfield there are two firms of carriers, each of which collects consignments of dead poultry from the chicken-fatters within a radius of ten miles of the railway-station, grouping those, say, for London into a single consignment in order to get the advantage of the lowest rates. In this way the 10 or 12 tons despatched

on a busy night would represent two consignments only, one for each firm. In actual practice, as soon as the collectors employed by the carriers arrive at Heathfield station with the crates they have obtained from the farms, or picked up from the wayside where they have been left for them, the various lots are sorted out according to the names of the dealers in London to whom they are consigned, and are so loaded into the vans as to facilitate the work of delivery on arrival in London. While requiring the various lots grouped by one firm to be consigned in the name of that firm, the railway company will deliver to as many separate addresses as may be desired. When the London agents have disposed of the chickens sent to them they deduct from the proceeds, not only their own commission, but also about one penny a bird for carriage, this sum being remitted by them to the carrying firms, to cover both cost of collection and the railway charges. The balance is forwarded to the fatter, who generally receives his cheque in the course of three or four days.

One result of this arrangement is that the chicken-fatters save from 50 to 75 per cent. in railway rates, while the railway company, in turn, benefit from having the traffic more concentrated, and being enabled to handle it with less trouble and to greater advantage. The rates charged for carriage from Heathfield to London, including delivery, range from 2s. for a single cwt. to 1s. per cwt. for 1-ton lots, so that if a fatter consigns even a single cwt. through the carriers as part of a big load, instead of sending in his own name, he still gets the benefit of the lowest rates, and is on the same level in respect to railway charges as the fatter who might be able to despatch a 1-ton consignment independently of the carriers. Then, the individual fatter is enabled to distribute his crates of chickens among the different

agents in London just as he pleases, without any need to consider what the railway charge would be for a particular lot. Whether he sends a day's supplies all to one agent, or distributes them in varying proportions among half a dozen or a dozen, the cost of transport is just the same when they all form part of a grouped consignment. He can vary the quantities to certain agents from day to day according to the returns he gets; but, however great the variations, or however small the lots, he will still have his chickens taken from Heathfield and delivered in London at the rate of 1s. per cwt., which works out, as regards railway rate alone, at just about one halfpenny per bird.

How the system operates can be further shown by the fact that, on a single night taken for the purposes of illustration, the grouped consignment of one of the two firms operating at Heathfield represented a total weight of 8 tons 6 cwt., and comprised 224 crates addressed to 23 different consignees in London, one of whom, for instance, was to receive 29 crates—weighing 1 ton 1 cwt. 12 lbs.—collected, probably, from a dozen different fatters.

Similar arrangements exist at Uckfield, with this difference—that there the work of collection is done by a single carrier.

Obviously, if only the agricultural interests of the country in general would combine on these lines, where they could, in order to secure the full benefit of the low rates already available for large consignments, they would often effect a considerable saving, and make proportionately higher profits on their produce.

Apart from any question as to what might, or might not, be done in the way of obtaining lower railway rates for agricultural produce by means of organization, it is important to ask whether the rates now generally

in operation, and applying to actual existing conditions, are unduly high, and calculated to impede the further development of the particular industries dealt with in the earlier chapters of the present work.

Taking, first, the carriage of new milk, the rates per imperial gallon for rail transport are as follows: Up to 20 miles, ½d.; above 20 and up to 40 miles, ¾d.; above 40 miles and up to 100 miles, 1d.; above 100 miles and up to 150 miles, 1¼d.; above 150 miles, 1½d. The average distance that milk is carried on both the Great Western and the London and North-Western Railways is, as already mentioned, 80 miles; so that, taking those two lines for the purposes of illustration, the average rate paid on the milk brought, say, into London is one penny per imperial gallon.

In return for that one penny per gallon, the railway companies provide, where necessary, special milk trains running express between certain points (some of the companies also provide special milk waggons) in order to bring in the milk; and they run special trains to take the empty milk-churns back, no charge for empties being made. At the principal London termini special milk platforms are provided, and I may here say that both in London and at large stations in the provinces the railway-station has become the recognised 'milk market.' The wholesale dealers get in more milk than they have actual orders for, and the supplementary churns, received any time during the morning, may remain on the railway-station platform until noon (the dealers or their representatives being in attendance), on the off-chance of some retailer running short and wanting a further supply. The provision of this convenience is regarded as included in the one penny per gallon, though I need hardly say that if the farmers or dealers were to build a milk depôt of their own in

SPECIAL MILK-TRAIN AT MILK-LANDING, EUSTON STATION, LONDON AND NORTH-WESTERN RAILWAY.

the neighbourhood of the railway-station they would find it a rather costly procedure.

The handling of the full milk-churns means a good deal of labour for the railway servants, especially at country stations where 14 or 16 gallon cans are delivered on the down-side, and have to be carried on the men's backs across the lines to the other side. The wear and tear also of the railway property, as the direct result of the milk traffic, is considerable. It is not only that the churns themselves are heavy, but the sharp edge of the bottom rim cuts into the floor of the waggons and into the station platforms—worse, perhaps, than any other form of traffic with which a railway company have to deal. To obtain some definite figures on this point, I inquired from the London and North-Western Railway Company what was the cost of renewals and repairs at the 'milk-landing' at Euston, and I learn that it amounts to about £140 per annum, made up as follows:

	£	
Timber portion:		
Repairs	34	per annum.
Renewals	14	„ „
Asphalte portion:		
Repairs	48	„ „
Renewals	44	„ „
Total	140	„ „

The life of the timber landing is estimated at only about sixteen years, and the cost of renewal is £224. The average life of the asphalte landing is estimated at about fifteen years, and the cost of renewal is £660.

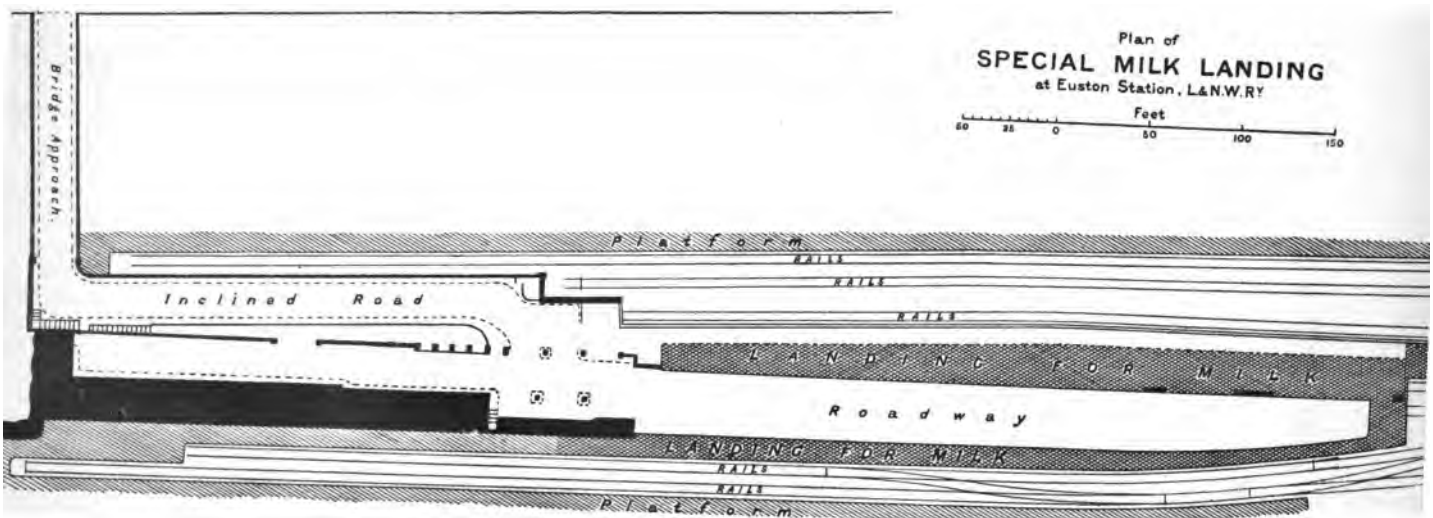
Another incidental expense involved by this traffic is that the hose has to be turned on to the Euston milk-landing every day to wash off the spilled milk, this being the only part of the station, I believe, where such an operation day by day is found necessary. The

cleansing of the asphalte offers no difficulty, and is mainly a question of extra labour; but on the timber portion (which the dealers prefer to the asphalte) the spilled milk soaks into the wood, turns sour, and in course of time gives rise to an odour that is far from pleasant.

There is, I find, a general impression among milk-producers and milk-dealers that the railway companies make a considerable profit out of the milk traffic, simply because it has assumed such substantial dimensions since the days when it represented nothing more than the putting of a milk-can into the guard's van of a train at a country station. It is interesting in this connection to compare the receipts for an average truckload of milk, conveyed by passenger train or special train, with the receipts from a truck of coal, as shown approximately by the following examples:

Distance.	Receipts per Truck for Milk.	Distance.	Receipts per Truck for Coal.
Miles.	£ s. d.	Miles.	£ s. d.
8	0 15 2	8	0 10 10
24	1 2 9	25	0 19 10
36	1 2 9	36	1 5 8
40	1 2 9	39	1 6 10
47	1 10 4	48	1 10 11
54	1 10 4	54	1 14 5
60	1 10 4	60	1 16 9

Setting against the receipts (1) the cost of running special milk trains, (2) the interest on capital expenditure in respect to the accommodation set apart for the traffic, (3) the extra wear and tear, and (4) the amount of the working expenses generally, the conclusion arrived at by several railway officers who have gone


Plan of
SPECIAL MILK LANDING
at Euston Station, L&N.W.RY
Feet
50 25 0 50 100 150
Bridge Approach
Platform
RAILS
RAILS
RAILS
Inclined Road
LANDING FOR MILK
Roadway
LANDING FOR MILK
RAILS
RAILS
Platform

very carefully into the matter is that the milk traffic does not pay. This is the view taken by, amongst others, Mr. Alfred Malby, Goods Manager of the London and South-Western Railway, from whose evidence before the Departmental Committee on agricultural railway rates I take the following:

> As regards the milk traffic, I say without hesitation that a large portion of this traffic is carried at rates which do not cover fully the cost of working. . . . Some years ago statistics were got out, not for the purpose of this case or any other case, but for our own satisfaction. We took the expenses of working the traffic over certain periods, and we also took the revenue from it, and from those statistics we arrived at the conclusion that it was unremunerative.

This conclusion (and it is fully borne out, I am told, by a like investigation made by another company) would seem to refute the idea that the railways are getting much profit out of their one penny per gallon; and it is pretty obvious that if the milk industry is to be put on a better commercial footing than at present, the efforts made should be in the direction, not of worrying the railways into granting further concessions, but of effecting generally in the trade itself that better organization by means of which alone the members of the Staffordshire Farmers' Association have secured their clear financial gain of from £30,000 to £40,000 per annum.

Whether or not the present decidedly primitive method of handling such large quantities of milk by means of so many different churns could be improved upon—as the further result of combined effort—by the adoption, in London at least, of the system resorted to by the Union of Berlin Milk Dealers, is a question which those concerned must decide for themselves. But it is worth considering. What the Berlin Union of Milk Dealers have arranged is a daily service of

milk-tank waggons between Denmark and Berlin, the waggons being taken across from Laaland to the coast of Germany on the steam ferry, and thence going express to Berlin. Each waggon conveys two large tanks lined with tin, and each tank holds 1,100 gallons of milk. The service started on October 1, 1905, when it was expected that about 13,500 gallons a day would be carried by means of these tanks.

Concerning fruit traffic, Mr. Vincent W. Hill, general manager of the South-Eastern and Chatham Railway Company, who bring very large quantities of fruit from Kent, showed in the evidence he gave before the Departmental Committee on Railway Rates for Agricultural Produce that the carriage of fruit over the entire system of his company works out at one-tenth of a penny per pound for passenger-train traffic, and one-twelfth of a penny per pound for goods-train traffic. These figures would represent a comparatively short mileage; but another witness before the same committee, Mr. J. E. Hennell, assistant goods manager of the Great Western Railway, stated that on his company's system the cost of a parcel of twenty-four pounds of fruit sent by passenger train—the dearest form of transit—a distance of 200 miles came to one halfpenny per pound. If 5 cwt. were sent the same distance, and also by passenger train, the cost per pound would be one-third of a penny, and if 10 cwt. were sent the cost would be three-tenths of a penny per pound.

'I think,' Mr. Thomas Russell, a Glasgow fruit merchant, told this same committee, 'the railways cannot do the thing much cheaper than they are doing it now.' 'Taking one season with another,' said Mr. John Idiens, who represented the National Fruit Growers' Federation before the Departmental Com-

mittee on Fruit Industry, 'I do not think the railway rates are excessive, and I do not think fruit is being spoiled by excessive rates.' 'Taking them through and through,' said Mr. Boscawen, M.P., at a conference on fruit culture held in London in October, 1905, 'and having regard to the nature of the services, the rates are not unduly high. By passenger train fruit sent 200 miles works out at three-tenths of a penny per pound. Where plums are sent 200 miles, the rate works out at one-eighth of a penny per pound. Such rates cannot be said to be too high.'

What should strike an unprejudiced observer most, indeed, is the amount, not of the rates charged in respect to either fruit or vegetables, but of the labour which the handling of the commodities and the working of the traffic involve on a railway company. I have shown the nature of the services rendered in connection with the fruit traffic from Worthing, and I have spoken of the multiplicity of consignments and packages at Evesham and Wisbech, in proportion to the quantities handled. I might, however, here give still another illustration. At Sandy (Bedfordshire) I learned that on an ordinary night a total of 90 tons of vegetables sent away to all parts comprised 172 separate consignments, averaging 10½ cwt. per consignment, and representing a total of no fewer than 6,826 packages, or an average of 40 packages per consignment.

Not only would each package require separate handling, but each would have to be counted into and (at the other end) out of the waggon, so that the railway people could be certain none had gone astray. To make matters worse, market-gardeners are so suspicious of one another that, as a rule (to which, however, there are exceptions), they put no address at all on their consignments, lest a neighbour and competitor should

get to know to whom they are sending. Baskets or boxes bear certain initials, and the railway people are left to discover alike from these initials (often almost undecipherable) and from the consignment notes sent in where the packages are to go. One station-master in Lincolnshire, commenting on this practice, said to me: 'There are only about two men on the station who can manage the business at all, and the wonder is how even they can do it.' The wonder also, when the staff of a country station may handle 6,826 packages a night under these conditions, is that still more do not go astray than is actually the case—causing, it may be, an endless amount of correspondence. The conclusion I myself arrived at in the matter was that by the time the railway company got their rate—and, I might add, the railway men their wages—they have well earned it!

To take still another branch of agricultural industry, there is a little story I should here like to tell, because it illustrates, in itself, a number of interesting points, including (*a*) changes in agricultural production; (*b*) differences in 'loading'; and (*c*) the railway attitude towards the traders.

At one time the farmers in the 'Cheddar district' of Somerset used to make a standard Cheddar cheese, of about 50 pounds weight, in such large quantities that 100 tons have been dispatched from Highbridge (Somerset) on a market day to different parts of the country. The railways would not now carry 100 cwts. a day, the reason being that the farmers have taken to making, instead of Cheddar cheese, a variety known as 'Caerphilly,' which goes almost entirely to South Wales, and is in great favour in the colliery districts there. The total quantity of cheese carried by rail is still about the same, and at first sight it would appear to be a mere matter of detail for the railway whether

the qualities made in the district are 'Cheddar' or 'Caerphilly,' provided they get the same bulk and (which is also the case) the same rate. But, in the first place, the Caerphilly cheeses weigh only about 5 pounds each, against the 50 pounds of the Cheddars, so that a ton of the former represents a good deal more handling than a ton of the latter. Then, whereas the Cheddar cheeses can be piled up on top of one another without detriment—being so hard that one could (as it was put to me) 'walk on them'—the Caerphilly cheese is essentially a 'soft' variety. Made, say, on a Friday, it can be sent to market on the following Tuesday—an arrangement which suits the farmers better than the prolonged storing and the special care necessary in the case of Cheddar cheeses. But the Caerphilly cheeses offer such bad loading that if, in the summer, four of them (sent loose) are placed on top of one another in the railway waggon, the one at the bottom will be crushed out of shape before the end of the journey is reached. The result is that not more than about 25 cwt. of these Caerphilly cheeses can be loaded into a railway truck having a nominal carrying capacity of 8 tons. In other words, whereas one railway waggon would suffice for 2 tons 10 cwt. of Cheddar cheese, two railway waggons are necessary for the conveyance of the same quantity of Caerphilly. Whether or not the farmers are getting more advantage out of the latter cheese than they did out of the former—especially considering the substantial saving in time and trouble—is a matter of detail on which I have no evidence before me; but, in any case, they have not been asked to pay any higher railway rate, although their change in method has so substantially increased the amount of rolling-stock required for the transport of their consignments.

I do not think there is any need for me to go into further details on this particular question. The idea that the railways are 'strangling' agriculture by the rates they charge is one calculated to keep people back from embarking further on agricultural industries, and for that reason I have felt bound to take some notice of it here. But the idea is one that will not stand the test of investigation. As regards 'undue preferential rates' to the foreigner, that phase of the question has been thoroughly exploded before the Departmental Committee specially appointed to inquire into the subject. Great difficulty was found in getting witnesses to come before the committee to support by specific instances the accusations so freely made in the press and elsewhere, while such cases as were brought forward were shown by the railway witnesses to be due, in almost every instance, either to a misstatement of the facts or to a misapprehension of their bearing. There is much that could be said on this point, but I must here content myself with stating that the opinion I have formed on a close study of the evidence given before the Departmental Committee is (1) that there is absolutely no reason for competent people to refrain from embarking on agriculture or agricultural industries because of any fear of 'undue preference' being shown by British railway companies to the foreigner; (2) that, from the market standpoint, the real question at issue is, not what it has cost to bring foreign produce from an English port, but what the cost has amounted to from the place of origin; and (3) that, other things being equal, British railway companies are vastly more interested in the development of agricultural districts at home than they are in helping to put money into the pockets of producers and traders in other countries.

The impression, indeed, which I gather alike from

the evidence given before the two Departmental Committees and from the altered tone of public opinion in general—especially during the last year or two—is that the bogey of 'excessive' railway rates on agricultural produce is dead, and that the bogey of 'undue preference' is dying. But two other grievances I have found still flourishing with a certain amount of vigour.

1. In the opinion of various growers, both of fruit and of vegetables, railway companies ought to reduce their rates (however reasonable these may be thought, under normal conditions) whenever there is a serious reduction in market prices—the result either of a home glut or of foreign competition—so that the waste that occurs when the produce has to be left on the ground may be avoided.

Everybody must sympathize with the growers who find themselves in the position here indicated; but are they sure that the remedy suggested is alike desirable, reasonable, and workable?

To reduce the rates because of a glut on the market would lead to that glut becoming still greater. The growers might get rid of their stuff, at a price, but what would the dealers say?

To reduce the rates, perhaps to a non-remunerative quantity, because of foreign competition, would be to throw upon the railway companies the responsibility of overcoming the commercial drawbacks of free imports.

To reduce the rates temporarily, in order to meet a particular situation, would, in itself, be an easy matter; but what would happen when that situation had passed away, and the railway companies wished to restore the rates to their original level?

Such restoration would count as an 'increase' of

rates, and what does, or may, then happen is this: Under Section 33, Sub-section 6, of the Railway and Canal Traffic Act, 1888, a railway company which proposes to increase a rate 'shall give, by publication in such manner as the Board of Trade may prescribe, at least fourteen days' notice of such intended increase, stating in such notice the date on which the altered rate or charge is to take effect'; while under the Railway and Canal Traffic Act, 1894, it is provided that the Railway and Canal Commissioners shall have jurisdiction to prevent any increase at all, unless they are satisfied by the railway company that the increase of rate is reasonable. Accepting, for the sake of argument, the certainly impracticable theory that there should be a sliding scale for railway rates based on market prices, the companies are free agents only as regards reductions. Hence they must be especially careful in the changes they make, however willing they might be to grant concessions intended to be 'temporary' only; and hence, also, it happens that an enactment intended to protect the trader may actually operate to his disadvantage.

2. The question of 'owner's risk' is, undoubtedly, regarded by many of the growers and traders as a serious grievance, and one hears far more about this matter than one does concerning the amount of the rates themselves. Here, again, it is impossible not to sympathize with the trader who has lost his market, or suffered other disadvantage, from one cause or another, and finds he can get no redress. But the question is one on which there is something to be said on both sides. The position was thus summed up by Mr. Hennell in the evidence he gave on behalf of the Clearing House Committee before the Departmental Committee on Fruit Industry: 'They [the traders] get a lower rate

in consideration of taking the risk, and no sooner have they got that than they want to be paid the claims exactly as if the fruit was carried at company's risk, and it means continual friction.'

It would be foreign to my present purpose to enter here upon any discussion of this vexed and complicated question. My immediate object is to see whether or not there is anything in the attitude of the railways towards the traders that would prejudice the prospects of a forward movement in agriculture; and the evidence forthcoming shows that, though there may not be perfect agreement on all points—and especially on 'owner's risk'—and though the railways, from regard for what they consider their own legitimate interests, may occasionally have to adopt a policy of self-defence that does not always meet with approval, the railways have, nevertheless, a direct and practical concern in the further development and increased welfare of Rural England.

Before leaving these various 'Transport Questions,' I should like to quote the following from the 'Guide' issued by the Newcastle-on-Tyne and District Fruit and Potato Merchants' Association, Limited, to which reference has already been made in the chapter on the Fruit Industry:

> The railway is a great aid to the trade of both growers and merchants. Reasonable rates and quick transit are needed, and we can now be sure of getting them. This has been realized by the Wisbech fruit-growers, and in the past four years they have more than doubled their trade.
>
> What they have done others can do, and what they have done in the past they can multiply time and again in the future. Railways will help us, but their help is most useful to those who help themselves, as they also work for a profit. . . .
>
> It is obviously to the advantage of growers to unite in sending, say 4-ton lots of apples and pears at 16s. 8d. per ton to New-

castle or Sunderland, rather than pay 31s. 6d. per ton (nearly double the truck rate) for smaller lots weighing a few cwts. each, when by arranging through the secretary of their Fruit-Growers' Association, or joining with neighbours for that mutual benefit, they can not only gain the lower rate, but secure quicker despatch by avoiding transhipments, and at the same time raise the reputation of their produce in desired markets.

The difficulty experienced by railway companies in dealing with small consignments of fruit and vegetables from country stations to numerous towns is immensely greater than the handling of the simpler parcels traffic regularly exchanged between large towns to and from which large waggon-loads are daily passing. Those waggons of parcels are easily worked by regular trains from the sending to the receiving station, and systematically carted from the latter, but the small consignments to or from country stations necessitate repeated transhipments, and no railway company could stand the extravagance of sending trucks with light loads direct from every station to the destinations to which the various consignments are sent.

It is difficult for growers without experience in railway working to realize the above fact, yet it has to be faced. The extra cost of moving vast numbers of light-loaded waggons would necessitate the charging of higher rates, and thus further handicap the British growers in competition with foreign producers, who collectively send their produce in larger quantities which the railway companies book in full truck-loads, and can therefore carry more cheaply and far more quickly.

For instance, Dutch, Belgian, and French produce in large quantities leaving the near ports of those countries any week-day evening, can be delivered in the London market the following morning almost as soon as English growers can get their produce on the market. But in the case of small lots of traffic for such towns as Northampton and Middlesbrough, requiring transhipment at junctions, so much time is lost in unloading, reloading, and waiting for connecting trains, that the produce cannot reach its destination promptly, consequently the bloom of the fruit or the freshness of the vegetables fades to such an extent that lower prices are realized.

From the foregoing it is evident that by sending in large quantities direct, the foreign growers are now able to send their produce into London almost as cheaply and quickly as English growers in the counties around that great city. Foreign growers can at present successfully compete in London, Dover, Folkestone, and Southampton ; but in view of the fact that they not only have to pay higher rates to our provincial towns, but are handicapped by the delay which transhipment of their smaller lots to interior places involves, it seems clear that English growers have a decided advantage in serving our provincial markets and gradually strengthening their position, till ultimately they will be able to

regain the London trade and oust the foreign growers' produce almost everywhere if they will wisely combine to send large regular lots as foreign producers have done.

Dealing with the complaints made by traders of the delays in the delivery of fruit, causing serious loss owing to the consignments arriving too late for the early morning markets, the 'Guide' says:

This late arrival is sometimes the fault of the railway or the weather, but very often it results from the growing desire to keep fruit in the packing-sheds till the last possible moment. That causes some growers to delay till too late for the connecting trains.

If a wet morning comes, later picking results in later delivery to the station. A wet day results in excessive quantities being rushed to the station during the following fine days, when the extra waggons suddenly needed cannot always be available, as nearly all stations in the fruit districts are simultaneously placed under that strain.

If it is a very hot day, growers delay despatch to the station as long as possible, and congestion results.

During the 1904 season it became quite a common thing for about 100 horse-loads of fruit to arrive at one station when the gates should have been closed for the night. The station agents being anxious to oblige and encourage trade, strove their utmost to accomplish the then impossible task of getting all the fruit loaded in time to get the trains away punctually. This was the case not only at the particular station, but all along the line, with the inevitable result that the trains frequently arrived hours too late at the junction, and missed connecting trains for the North. . . .

The obvious remedy in the interest of the growers generally is for the railway companies to insist upon their gates being closed in sufficient time for the fruit to be efficiently loaded and the waggons ready for the punctual despatch of the trains. Then only can regular running to destinations be insured. . . .

Laggards who were shut out would be immediately faced with the fact that they had lost their market, and learn a wholesome lesson, whilst they would be prevented from inflicting injury upon their more punctual, considerate, and deserving competitors.

The fruit-growers' associations could not confer a greater benefit upon their members than by thus wisely co-operating with the railway companies to insure fruit being loaded in time for prompt despatch by each train.

In this connection I may say that in London another serious cause of delay is the detention of the delivery

vans—often for several hours—outside the markets, and especially Covent Garden, owing either to the congested conditions of the street traffic there, or to the reluctance of salesmen to accept delivery of fresh consignments until they have disposed of what has arrived earlier.

CHAPTER XVIII

THE LAND QUESTION: PEASANT PROPRIETARY ABROAD

THE facts, figures, and arguments already adduced have, I trust, established my earlier propositions as to the changes in agricultural production, and the need for supplementing those changes by agricultural combination. My next proposition, stated in full, would run thus: That the aforesaid subsidiary agricultural or kindred industries offer, on the whole, special opportunities, in suitable circumstances, for the energies of small holders capable of adapting themselves thereto, with fair prospects of success; and that it is desirable, in the interests of our deserted villages, of our overcrowded towns, of the nation, and of our fellow countrymen individually, to increase the number of such holdings with a view to (*a*) taking advantage of the aforesaid changes and developments; (*b*) checking the rural exodus; (*c*) placing more people on the land; and (*d*) decreasing our dependence on the foreigner for such, at least, of our food-supplies as, even under existing fiscal and economic conditions, we could just as well provide for ourselves.

In this further proposition I have the materials for several more chapters, if not for another book. But, if I were to adduce all the arguments by which it could

be maintained, I should simply be repeating much that has been said already, and in laying those arguments afresh before my readers I should feel that I was—as regards the majority of them—merely preaching to the converted.

I will, therefore, venture to assume that this general thesis is formally accepted, and will pass on at once to the essentially practical matter of detail as to the principle on which small holdings—or the allotments which often rank as small holdings and may at least be preliminaries thereto—should be established.

It may well be that in the past sufficient recognition has not been given to all that land-owners, individually, have done in the way of providing small holdings and allotments. But there are obviously special grounds for further action, and the problem of immediate concern is the particular line that such action should take. No great progress, however, is likely to be made until a decision has been arrived at on the disputed question as to whether small holdings should be owned, or only rented, by their occupiers; and it is this particular point, in the first instance, to which I would direct public attention, my own view of the situation being that some of the greatest difficulties which have arisen in the way of creating an adequate system of small holdings, on a well-organized basis, in this country—to supplement such large farming as may still be practicable and profitable—have been due to the attempt to make small holders the actual owners of the land they cultivate with a view to the creation on British soil of a large body of 'peasant proprietors.'

Theoretically, and looking at the matter from a ely sentimental point of view, the idea of ownership egard to land appeals far more strongly to the vast ority of people than the idea of tenancy. Earth-

hunger is a complaint that attacks individuals of every rank in life, in every country in the world; and, next to the accumulation of money, there is probably no one form of ambition more acute, and more widespread than that of becoming, as it were, part-proprietor of the universe. But the experiences of foreign countries should be studied before any further attempt is made to establish peasant proprietorship on any general basis here, and the result of such study should, I would submit, lead to the conclusion that, even from the Continental standpoint, it would be preferable in Great Britain to set up some more practical and more desirable alternative.

France has often been pointed to as an example for England to follow in the matter of peasant proprietary, and certain it is that, if the system can show satisfactory results anywhere, such results ought to be found in a country where peasant proprietary has had, perhaps, its greatest opportunities. But on this particular question one must not be led astray by mere figures as to national wealth, or by the familiar stories concerning the *petits sous* which the French peasant hoards in old stockings, and may lend to his own Government —or to Russia—at interest, in preference to devoting them to the better development of the land from which they have been derived. One needs to look into the question much more closely than this. It is not the wealth of the nation as such, but the condition of the peasantry themselves with which we are here mostly concerned.

The first fact that strikes one forcibly in connection with peasant proprietary in France is the excessive degree to which the subdivision of small properties has been carried. As one generation has succeeded another, and the individual plots of land have been

still further divided, the *morcellement* has already gone so far that some of the holdings are of the most diminutive proportions, and the fear of what may follow from still further subdivision is one of the reasons for those 'two-children families' which have led in so marked a degree to the decline in the native population of France.

Even, again, a property of 20 or 25 acres may be represented by 30, 40, or 50 small patches and parcels of land scattered over an entire commune. Members of a family and also neighbouring proprietors ought, of course, to arrange an exchange of such patches, in order to concentrate the individual properties, reduce the amount of labour and the cost of working, and facilitate the use of agricultural machines. But the greed for land is so great among the peasantry, the jealousy and the mistrust of neighbours are so intense, and the hatreds that arise are so bitter, that amicable arrangements are often far less likely than constant disputes and bickerings, if not interminable lawsuits as well.

In the cultivation of these scattered fragments of land the practice followed by successive generations of peasant proprietors of France has been to produce a little of everything—vines, vegetables, corn, oats, barley, hemp, etc.—on the same soil irrespective of its suitability for such crops, the great idea of the cultivator being that he should avoid spending any money on the supply of his domestic wants. When purchase becomes unavoidable, he hopes to effect it by a system of barter, so that the *sous* in the stocking may remain intact. But the work of cultivating, mainly by hand, so many separate morsels of land, for the production of so many different crops, represents a degree of toil that has often been only slavery under another name.

Abundance of evidence on this point, from competent authorities, is forthcoming.

In his 'Relèvement de l'Agriculture,' Lafargue wrote:

> The condition of agriculture brought about by our subdivision of land, and the distance from each other of the morsels belonging to one owner, condemn a man to work such as animals and machines ought to execute, and not only reduce him to the level of a beast, but curse the soil with sterility.

Léonce de Lavergne says in 'L'Économie rurale de l'Angleterre, d'Écosse et de l'Irlande':

> Although the French labourer is frequently proprietor of the land, and thus adds a little profit to his wages, he does not live as well as the English farm-labourer. He is not so well fed, not so well clothed, and is less comfortably lodged. He eats more bread, but it is generally made of rye with the addition of maize, buckwheat, and even chestnuts. . . . He rarely eats meat. I am acquainted with parts of France where people live on 70 centimes (7d.) a day.

Michelet, in describing the life of the French peasant, says:

> Follow him before daylight, you will find your man at work, with his children and his wife, who has recently been confined, who drags herself along on the wet earth. At mid-day, when the heat is sufficient to split the very rocks, when the slave-owner would permit his slave to rest, the voluntary slave must keep on working. Look at the food he eats, and compare it with that of the artisan. Why, the artisan fares better every day than the peasant does on Sundays. Do you wonder, now, if this Frenchman, this laugher, this former singer, laughs no more? Is it surprising that, when you meet him on the land that devours him, he appears so gloomy? . . . Isolating himself as he does, and becoming more and still more bitter, there is too much sadness in his heart for him to open it to any sentiment of benevolence. Alone on this miserable property, as on a desert island, he becomes a savage. His unsociability, born of the feeling of his misery, prevents him from being on good terms with those who should be his colleagues and friends—the other peasants. He hates the rich, he hates his neighbour, and he hates the world.

Of Balzac's 'Les Paysans' Lady Verney writes in

'How the Peasant Owner lives in Parts of France, Germany, Italy, Russia':

The pictures of the mean, sordid lives of the main part of the peasant population—the dogged way in which they pursue the wretched objects of their existence, *i.e.*, the earning and hoarding *des petits sous dans de vieux bas*, the lying, cheating, picking, and stealing which are considered lawful as against a '*richard*' [well-to-do person], the way in which all means, the most vile and repulsive, are condoned for the sovereign end, the obtaining of a little bit of land—form a repulsive picture indeed.

Nor have the results of peasant proprietorship in France been more satisfactory from a financial standpoint. 'Proprietors' they may be in name, but few of the peasants hold their land free of mortgage, and many of them are heavily indebted besides. They not only cultivate the soil under the most laborious of conditions, but they must meet, as best they can, the demands of the State, the usury of the money-lender, and also the fees of the lawyer who fattens alike on the land transfers and on the quarrels and lawsuits. 'Of the 8,000,000 proprietors in France,' wrote M. Lecouteux, when Professor of Rural Economy at the Institute, '3,000,000 are on the pauper roll, exempt, that is, from personal taxation'; while of the remainder, at the period of which this authority speaks, 600,000 proprietors paid contributions to the State amounting to only five centimes each. 'Getting rid of one order of landlords and their rents,' adds M. Lecouteux, 'they have subjected themselves to another, though invisible, order—the mortgagees, and to their heavier and more rigid rents.'

Another French writer on economics, in dealing with 'Peasant Proprietary in France,' says:

Capital is the sinews of high farming, and poverty is the constitutional disease of peasant proprietary. And not money alone is it that the French peasant lacks. He lacks also the brains to

apply the new processes of agriculture. Full of cunning as he is, and able, as Balzac says, on any disputed point to out-Talleyrand all the Talleyrands of diplomacy, the French peasant is, for all that, narrow-minded, obtuse, and *routinier*. Moreover, he instinctively feels that to meddle with the established order of things is indirectly to attack his right of property. As a necessary consequence, he opposes to the uttermost all new methods of culture, his natural distrust of which has been aggravated by his own experience of failure where such methods have been imperfectly applied. And when, in spite of himself, he has been driven to make use of foreign seeds, guano, and chemical manures, his ignorance has caused him to fall so easy a prey to the fraud and quackery imposed upon him by the trade that his dislike of innovations has become inveterate.

In these latter respects a great improvement has been effected in recent years through the agricultural syndicates and the various other phases of that practical organization which has done so much to advance the general condition of agriculturists in France. But the fundamental disadvantages, both moral and material, inherent to the system of peasant proprietary still remain.

In Holland the position brought about by peasant proprietary is, in some respects, still more acute than in France. The supply of available land is, of course, very much smaller, and, partly on this account, and partly because so much of it is polder land, which has been rescued at great cost from the waters, values and rentals may be somewhat higher than in other Continental countries; and they would be higher still but for the fact that Dutch land-owners are generally satisfied with a return of 2½ to 3 per cent. Most of the farmers and cultivators aspire to become owners, and, in effect, of the total amount of land in the country devoted to agriculture and horticulture, 99,290 hectares are in the hands of proprietors, and 83,276 hectares are occupied by tenants. The relative proportions, and also the size of the individual holdings, in the case

of land used for horticultural purposes, are indicated by the following tables, in which I have reduced hectares to acres (1 hectare = 2½ acres):

Acres.	Market Gardeners—Fruit or Seed Growers.		Total.	Florists.		Total.
	Owners.	Tenants.		Owners.	Tenants.	
⅝ to 1¼	1,035	1,118	2,153	220	167	387
1¼ to 2½	1,331	1,479	2,810	73	40	113
2½ to 5	1,227	1,710	2,937	33	23	56
5 to 7½	545	729	1,274	6	7	13
7½ to 10	292	362	654	3	0	3
10 to 12⅝	156	184	340	1	0	1
Over 12⅝	166	137	303	2	1	3
Total	4,752	5,719	10,471	338	238	576

Acres.	Nurserymen.		Total.	Bulb-growers.		Total.
	Owners.	Tenants.		Owners.	Tenants.	
⅝ to 1¼	135	530	665	158	319	477
1¼ to 2½	192	164	356	105	176	281
2½ to 5	132	60	192	108	138	246
5 to 7½	60	23	83	83	81	164
7½ to 10	35	9	44	44	37	81
10 to 12⅝	23	2	25	29	15	44
12⅝ to 24¾	25	8	33	43	38	81
24¾ to 49⅜	8	4	12	22	8	30
49⅜ to 123½	2	4	6	11	3	14
Over 123½	0	1	1	2	0	2
Total	612	805	1,417	605	815	1,420

These tables throw an interesting light on the size of the average holdings in Holland, but they convey no really adequate idea of the lengths to which the excessive subdivision of land has been carried in that country. Small as the holdings are, one has to remember that a large proportion of them would not be represented by one piece of land, but would comprise many different strips or parcels.

What has been happening in different parts of Holland under the system of peasant proprietary in vogue there can be easily realized by the reader. Let him assume that a Dutch farmer is the proprietor of a square patch of land representing not more than 10 acres, and having access to a road along only one side. He has, say, four sons, and on his death he leaves the land to be divided equally between them. Should the land then be cut up simply into four smaller squares, the effect must be that only two of the sons will have access to the roadway, the two others being isolated therefrom. To avoid this the land is divided lengthwise, so that each of the four gets a fourth of the frontage. But in course of time the four sons die, each of them, as we will again assume, leaving four sons in turn to succeed him. Further divisions follow, and the square piece of land originally held by one man is now to be owned by sixteen. But each of those sixteen will want his frontage to the road, so that again the division takes place lengthwise. Repeated subdivision for a series of generations would be bad enough in any possible circumstances, but it becomes still worse when that question of access to the road arises in addition.

A good deal of what was once common land has been divided and subdivided on the same principle. In either case the strips of land may become just the

counterpart of so many pieces of tape laid side by side, the length being out of all proportion to the breadth. The general effect, as regards many parts of Holland, may be judged from a reproduction, given in the appendix to the present work, of a plan of the commune of Vledder (Drenthe). The average dimensions of one of the strips in the group at the top of this plan would be 380 yards by 14 yards. In one instance there is a length of 428 yards to a breadth of 4 yards. At the bottom of the plan I have marked one especially long and narrow strip with '×'. Here the dimensions give a length of 1,275 yards, and a breadth of 22 yards.

Each farmer or cultivator naturally requires a number of such patches as these in order to obtain land enough for the support of himself and family, and, as the most enterprising and successful advance, they try to secure still more. But it rarely happens that they can buy or rent fresh land immediately adjoining their own, and they have to be content with such other pieces as may be available wherever they can be got. Here, again, the plan I give will show how the 'holding' of an individual farmer in Holland may really be made up of isolated scraps and strips of land all over the commune. Nor does the plan in any way exaggerate the situation, for in a leading Dutch paper, which has recently published a series of articles on the subject, reference is made to a farmer whose holding of close on 90 acres consists of no fewer than *seventy-eight* parcels of land in different parts of the commune in which he lives!

The results of such a system as this are bad for the people, bad for agriculture, and bad for a country where land is so scarce. There is much loss of time in going from one strip of land to another; there is an enormous increase in the toil involved in cultivation; there is little or no chance of using labour-saving appliances; there is

no adequate opportunity for developing the best agricultural methods; and there is a great waste of land in paths and boundary water-courses.

So serious, in fact, are these results that the whole matter has been made the subject of earnest investigation by the Niederlandsch Landbouw-Comité (Dutch Agricultural Committee), a body which, subsidized by the State, represents all the leading agricultural interests in Holland. The evils are readily recognised. The difficulty is in finding an effective remedy. There can, in fact, be no hope of securing that remedy until some such system of redistribution is arranged as will give each proprietor practically the same amount of acreage in one piece, or, at least, in considerably fewer pieces than at present.

Attempts have been made from time to time to effect arrangements on this basis by voluntary effort. But experience shows that, although the majority of the members of a family, or of the proprietors in a certain district, may be willing, and even anxious, for such a redistribution, there is generally a minority which, from sheer obstinacy, or from complete indifference to the general welfare, refuses its assent, and so nullifies the proposal. The question now being discussed in Holland is whether or not a law should be passed laying down that, where such a majority shall be in favour of a redistribution scheme, and where the scheme itself is in accord with public interest, the minority shall be obliged to surrender; but in what manner the problem will eventually be solved the future must be left to show.

Meanwhile the Dutch farmers and cultivators find economic salvation in excessive toil, scrupulous thrift, and plain living, combined with a most comprehensive system of organization which enables them to effect

substantial economies in their purchases, to produce under better conditions, to market their supplies to greater advantage, and to secure profits on a higher scale than would otherwise be possible. So they manage to make a living, and they even prosper, more or less, under conditions in which the British farmer, as an individualist, would hopelessly fail; but this they do in spite of, rather than because of, a system of peasant proprietary which I, for one, would certainly not care to see reproduced here.

I will not attempt to deal with all the other countries of Europe where the widespread ownership of small properties has led to minute subdivision, burdensome mortgages, chronic indebtedness (now relieved somewhat by agricultural credit banks), and lives of grinding toil. But the case of Denmark is one which claims special notice, inasmuch as that enterprising little country has attracted so much attention of late years. In regard to agricultural education and organization, she has certainly secured remarkable results; but when one comes to look more closely at her much-boasted system of land tenure, one finds some of the darker lines of an otherwise pleasing picture.

Nominally, the peasant proprietors who constitute so important a section of the Danish people are 'freeholders'; practically, they are saddled with a mortgage debt estimated at about £60,000,000, and representing 55 pèr cent. of the value of their farms, with buildings, stock, and improvements. This debt is largely, though not entirely, due to certain Credit Associations which were formed in Germany in the fifties to enable the Danish agriculturists to purchase their farms or holdings, mortgages up to 50 or 60 per cent. of the purchase price being granted, with repayment extending over periods of from 50 to 100 years. So the Danish farmers

became 'peasant proprietors,' but it is doubtful if they have derived much benefit from the change of system. Interest and repayment of principal still constitute a heavy burden, and many a Danish farmer is, with all his family, working for long hours, and looking to England for the profits he makes on his produce, not so much for his own gain as to satisfy the demands of his German creditors.

One of the main reasons for the magnitude of the mortgage debt in Denmark is to be found in the substantial increase in the price of land, from time to time, as the farmers became more anxious to buy. This was especially the case on the resort, in the eighties, to that system of co-operation by which the Danish agriculturists hoped to avert the agricultural crisis that then overtook them.

When wheat-growing no longer paid, they turned their attention to the production of dairy supplies on the now well-known lines. Greatly increased possibilities were thus opened out to small farmers, and the desire to purchase small holdings was so general that it became extremely difficult to obtain them at a reasonable price. To assist in meeting this difficulty, Acts were passed by the Danish Parliament in 1899 and 1904, setting aside substantial sums from which loans could be granted to any agricultural labourer who, having already a small amount of capital, wanted to raise the remainder so that he could purchase a holding of his own. The loans are granted under easy conditions, and they have been taken so much advantage of that since 1899 there has been a large increase in the number of peasant proprietors. But this further demand, coupled with the fact of State aid now being available for would-be purchasers, caused the price of land for small holdings to go up higher than ever.

The position to-day is that, while large estates can be bought in Denmark at (in English currency) £27 per 1⅛ acres, and medium-sized farms at £43 per 1⅛ acres, small holdings cost £55 per 1⅛ acres, or double the amount charged for a large estate. Thus, apart from any other considerations, the Danish small holder who becomes a peasant proprietor starts by having to pay an altogether artificial price for the land he purchases; he sinks in the ownership of that land present capital which would otherwise be available for the purchase of stock and for other expenses; and he incurs, in place of rent, a rigid mortgage debt unduly swollen by the excessive price he has agreed to pay for his farm. If, in addition, he borrows money in other directions to work the land he has thus acquired, he still further increases the weight of the millstone of debt he has hung round his neck; and he may ultimately find the financial position in which he is placed a serious set-off to the advantages he otherwise derives from his co-operative societies—without which, indeed, it would be hardly possible for him to pay his way at all.

CHAPTER XIX

PEASANT PROPRIETARY AT HOME

APART from the action of politicians, land reformers, and public authorities, there are certain antagonistic conditions which tend, on the one hand, to restrict, and, on the other, to increase, the number of allotments and small holdings in our own country.

However sympathetic, as a matter of sentiment or principle, many of our great land-owners may be to the general movement, they are often practically governed by, or otherwise leave themselves in the hands of, their estate agents, and these individuals are, with almost one accord, opposed to the system, and disinclined to do anything that will lead to its extension. They object to it both on personal grounds and as men of business. On personal grounds it is obviously much less trouble to themselves individually to deal with one large farmer rather than with fifty or a hundred small men occupying the same amount of land, and including, probably, a considerable proportion who would worry them more or less about complaints or minor repairs and improvements which the large farmer would keep to, or undertake, himself. Then, as men of business, they consider it safer to deal with a farmer on a large scale, whom they know and can trust, than with a collection of small cultivators of whom they

know little or nothing, and in whose proper cultivation of the land, and prompt payment of the rent, they can feel no sense of security.

In these scruples the estate agents are often strengthened by the large farmers, who meet them from time to time, are intimately acquainted with them, and can influence the mind of the agent just as the agent, in turn, can influence the mind of the great land-owner. The large farmer, devoting, it may be, his chief attention to the cultivation of cereals, is the type of agriculturist from whom the loudest complaints in regard to agricultural distress are heard, and he is apt to look with no friendly eye on the small man who is achieving a greater degree of comparative success with some minor industry. His prejudices (I am here taking the case of the average English farmer) become still more acute when the small man happens to have been a plodding, persevering labourer or foreman, whose aspiration to be independent of service and become a farmer himself he personally resents. So when the large farmer meets the estate agent, and the subject of small holdings is discussed, the large farmer expresses ideas which the estate agent is already disposed to welcome, being strengthened thereby in the emphatic protests he makes to the land-owner, should the latter entertain any idea of letting off part of the estate to small cultivators.

Even the greatest of land-owners would require to have considerable strength of mind to insist on the carrying out of their sympathetic ideas in face of the moral pressure thus brought to bear upon them by their expert advisers. In the result, they too often think it better to follow the line of least resistance, so that when any farm becomes vacant it is not cut up for allotments and small holdings, but added, preferably, to that of someone who already has a big

slice of land, and may be desirous of getting still more.

While the estate agent has thus become the natural enemy of allotments and small holdings, the country solicitor has developed into one of their sturdiest champions—always provided they are to be owned, and not rented, by the occupier. For country solicitors, in those districts where small holdings are in vogue, peasant proprietary has become somewhat of a gold mine. They, at least, do not share the prejudices of the estate agents in favour of large farms. On the contrary, they believe in cutting up the large farms into the greatest possible number of freeholds. 'Back to the land,' is their cry. 'Plant as many people as you can on the soil (and especially in our highly desirable locality), but let them all be freeholders.'

The reason for this attitude on their part is obvious enough. For every fresh holding that is bought, or transferred, there are various fees to be paid, a goodly proportion of which will remain in the pockets of the solicitors. Then each new freeholder becomes a new client for the gentleman who arranges the sale. It is extremely improbable that the aspirant for peasant proprietorship will be able to pay at once for the land he agrees to purchase, and the lawyer then gets another set of fees for arranging a mortgage for him; he finds a profitable investment, besides, either for his own money or that of some other client, and he retains a hold on the new freeholder for probably the rest of his days.

So far has this sort of thing been carried that in a small country town which forms the centre of a district where a large number of peasant proprietors are already established (and where, judging from advertisements in the local papers, the creation of still more

is being actively continued), I was told by a local resident who had special facilities for knowing the truth of what he said, 'Within a radius of ten miles of this town there is drawn from the land, in the form of fees for conveyancing, transfers, negotiations for mortgages, commissions, and other legal expenses and charges, mainly in connection with small freeholds, a sum of at least £5,000 a year.'

Can the land, and especially the land cultivated by small holders, stand such a drain as this? Are not these conditions a primary cause, rather, why so much of the small farming in this country is in a state that is absolutely rotten? Here we have questions that are well deserving of consideration.

Looking, in the first place, at the price which the would-be peasant proprietor must pay for his land, independently of legal charges, it is certain that the English agriculturist who desires to purchase a small holding in the open market labours under special disadvantages. It is not alone that he has to compete with a number of others possessed of similar aspirations, but various causes have combined to give to much of the land in this country—more, perhaps, than in any other country—a market value which is in excess of its commercial value—that is to say, its value when it is wanted for the production of commodities for sale. This is especially the case in regard to land which might be utilized for residential purposes for the sake of the social advantages afforded by the ownership of an estate or in the interests of sport. Not only do established country families seek to increase their properties, for one reason or another, by incorporating therein any bit of freehold they can secure in the immediate neighbourhood, but the market value may still further be kept above the commercial value by

reason of the fact that every Englishman, more or less, who has prospered, thinks it is incumbent on him to set up his 'place' in the country, if he should not have one already. In either case a higher price would often be forthcoming than could be afforded by a cultivator who desired the land as a means of obtaining a living thereon.

Still more do these considerations apply in the neighbourhood of a town, or of a village not too far from a railway-station—that is to say, in precisely those localities which the small holder who wanted to start market-gardening, or some other such business, would find the most desirable for his purpose. Here he might have to compete with the retired professional man, merchant, or tradesman, who, though unable to buy a large estate, wished for 'a bit of land,' which he could either build on or, at least, feel a pride in owning, and for which he is not disposed to look too closely at the price, assuming he finds what suits his fancy. Alternatively, the local publican or blacksmith may be on the look-out for a garden, or a local tradesman may require some accommodation land for his horse. These individuals, again, would be prepared to give for a piece of suitable land—of which the quantity within a convenient area will be limited—a higher price than should be paid by a cultivator who wanted the land only for the purposes of profitable cultivation.

So, to begin with, the would-be small owner, standing as a solitary unit, might agree to buy land at a higher price than he ought to pay—from a commercial standpoint—even if he had the money. But he has not got the money. He possesses a certain sum, and this the seller of the land agrees to accept, the remainder being left on mortgage. Should he be a promising man, and have a few sturdy sons, the lawyers may

encourage him by saying they will make the terms 'easy' as regards the amount to be paid down, and the conditions of the mortgage. Whether or not the candidate for proprietorship is really a qualified agriculturist, likely to work his land to advantage, is a matter of detail with which the lawyers have little or no direct concern, even if they were really qualified to form an opinion thereon. It is sufficient for them that the man wants to buy, and can raise the stipulated sum. If he should give up in the course of a few years, there will be a further transfer and more fees.

In the circumstances it may well be that the 'proprietor' starts operations on his mortgaged holding with practically no working capital. Almost every penny he possesses will have been either sunk in the initial payment for ownership or paid away for legal expenses. What happens next is that he gets into debt with the wholesale traders or their agents. He expects them to supply him with everything he wants at the beginning of the season, and to wait for their money until harvest time, when he will pay them—if he can. Should one trader demur, he withdraws his custom and goes to another. The trader is thus forced to become, in effect, the cultivator's money-lender, with this difference: that what is lent is represented by seeds, manures, implements, etc., instead of hard cash. Such transactions go by the courtesy title of 'long credit,' but they may represent not only money-lending, but money-lending in a particularly bad form. If the small holder received hard cash he would know what he got, and what rate of interest he had to pay. But the trader to whom he resorts is, at least, in a position not only to charge him for the goods supplied a price which would include a money-lender's rate of interest, but also to palm off on to him—if he still remains an

individual unit—seeds, manures, etc., of so defective a quality that he would have little or no chance of getting a satisfactory return from them.

Bad, therefore, as the prospect is for the small free-holder when he has (1) sunk his available capital in ownership, (2) satisfied the demands of get-rich-quick lawyers, and (3) strapped on his back the burden of a mortgage he can hardly hope to redeem, his position becomes still worse if he tries to make his way with no co-operative society through which he can buy necessaries of guaranteed quality at the lowest rates, or consign and sell his produce to the best advantage. He struggles on, hoping that times will mend, and doing his best to meet inflexible mortgage charges which, in bad seasons, become the worst form of 'rent.' His struggles become even more severe when, still as an individual unit, he competes on the market with foreign produce grown in countries where land values and cost of production are lower, and the actual producers represent a highly-organized community. In the end he joins in the despairing cry that 'British agriculture does not pay'; he reviles the railway companies; he calls on the Legislature to make him prosperous; and he probably finishes off by disposing of his holding for what he can get—in which case there will be a fresh lot of fees for the lawyers, and the whole business will recommence *de novo*.

If the small holder were in a position to purchase right out, free of any mortgage at the start, there would still be the temptation to raise money on mortgage later on whenever it was wanted, and to such temptation the majority of peasant proprietors who are absolute owners, either in England or elsewhere, generally succumb. This has especially been the case with the 'statesmen' of Westmoreland and Cumberland, whose

steady disappearance various writers have deplored. When, in spite of the hardest toil and the closest thrift, many of these English peasant proprietors found themselves on the verge of starvation (as happened in bad times), the only remedy open to them was to mortgage their properties. In effect, nearly all of them were 'mortgaged up to the hilt,' and, even if they avoided foreclosure, they had to meet the heavy burden of interest on the mortgages, as well, possibly, as the payments to other members of the family with which inheritance might be saddled.

Should the small free-holder resist the temptation of raising money on mortgage, there is still the possibility that he would yield to temptation in another form by selling his land to some well-to-do citizen, who might be willing to give him more than its commercial value. In that case the small holding would probably be a small holding no longer, but be used for residential purposes. The small owner might even find it desirable (as many an English cultivator, including Lake District 'statesmen,' has done) to sell under these favourable conditions, and, with the money thus raised, start afresh as the tenant of a larger farm elsewhere. Alternatively, if a small free-holder grew weary of the labour involved, and found he was not adapted thereto, he might sell out to a more successful neighbour, who would add the plot to his own, and so, in course of time, as the result of various purchases of this kind, rise from a 'small' into a 'large' owner. For these various reasons, there can clearly be no guarantee of continuity in the 'ownership' of small holdings.

Looking at the matter from the point of view of first principles, I should say that purchase — provided tenancy on satisfactory lines can be secured instead

—is the more undesirable, because the small holder should be able to do better with his money. Farming as a business must be run on business lines, and there ought to be a greater profit from capital placed in a business, with the possibilities of a more or less frequent turn-over, than from capital locked up in land that is wanted for cultivation, and especially in land bought at, as I have said, more than its commercial value. In the case of a person of independent means, or of a professional man having no enterprise of his own in which to invest his savings, surplus money might well be put into such land; but the position is different with an agriculturist whose limited supply of capital represents the primary essential for the successful management of his business, and who really cannot, as a rule, afford to introduce into business any considerations that may be purely sentimental. As a peasant proprietor, he is dependent entirely on his own capital. As a tenant, he is working, to a certain extent, with the capital of his landlord, paying, through his rent, in part, only a low rate of interest thereon.*

At a farm in Yorkshire I saw recently some buildings which the landlord had erected, at a cost of £300, to enable the tenant to carry on his dairy business to better advantage. Had the tenant owned the land, he would have had either to put up these buildings himself or go without them. As it was, they were provided by the landlord, without, as it happened, even such increase in

* Mr. Druce, an Assistant Agricultural Commissioner, wrote in a report published in the 'Allotments' Blue-Book of 1882:

'If a man has £1,000 to spend, he can buy 10 acres of land, and have still sufficient capital to work them; but as a tenant farmer he can farm 100 acres with a capital of £10 an acre, and will make more money, as he has the advantage of using his landlord's capital at a very low interest, whereas if he buys the land the money is sunk.'

rent as would represent interest on outlay. Here, then, we meet with another consideration: that the peasant proprietor must pay for all his own improvements—a prospect that may be far from pleasing should he still be heavily mortgaged and in debt to the traders or money-lenders. In the same way, of course, the peasant proprietor must do all his own repairs, and meet the fixed burdens on the land.

Ownership, again, may prove a serious bar to advancement. A cultivator who starts on a very small holding may find in the course of a year or two that he can do with a larger one. He repeats the same experience later on, and, step by step, should he be a tenant only, he moves from one place to another until he becomes a farmer on a comparatively large scale. One instance brought to my knowledge in Yorkshire was that of a man who began as a labourer with a small allotment, and, in successive stages, worked up to the tenancy of a farm of 80 acres, settling his sons on other farms around him. In cases such as this actual ownership would mean that a man would advance a certain distance and then stop. The trouble and cost of successive dealings in land will be found more than the average small proprietor cares to undertake, and he will rest contented, and lag behind, while the tenant, with his greater freedom, is able to adapt himself readily to new conditions. Instead of the small owner being master of his land, the land is more likely to become master of the small owner.

And then there is that last problem of all for the solution of the small owner: What is to become of his few acres when he dies? If he leaves them to his widow and she sells, she will do so at a disadvantage. If he divides the holding equally among his children, and these, in turn, divide their share among their

children, it will not be long before a state of things is reached analagous to that found in certain parts of Italy, where 25 per cent. of the peasants have 'properties' of less than ¼ acre each. Should he leave all to one son, the other members of the family may feel aggrieved, while if the son who inherits is required to contribute to the maintenance of other members of the family, there is created a rent-charge which, with the special moral obligations involved, might become much more burdensome than ordinary rent, especially in times of depression. Alternatively, any general letting of properties so inherited would bring into existence a body of small landlords, who would probably be found far worse than the large landlords they succeeded.

The small holder who is content to hire rather than buy thus avoids what Dr. Lavergne describes as 'that turning aside of capital from the cultivation of land to its purchase, which is one of the chief vices of our French rural economy.' Whatever money he possesses he can keep as working capital; he has less need to borrow, and then to sorrow; he is more free to improve his position as opportunity occurs, and he avoids possible family discords and complications.

These considerations should almost suffice in themselves to show that, while the drawbacks of peasant proprietary may have to be tolerated as best they can in France and other countries where they are the growth of generations, one may well pause before doing anything to create deliberately such a system in Great Britain.

I would, however, also point out that the tenant has this further advantage over the would-be small purchaser: that sympathetic land-owners, who care more for the social advantages or for the opportunities for sport they derive from their estates than from any

actual profit to be derived therefrom, might be willing to accept tenants at a moderate rent for certain portions, thus retaining the aforesaid social advantages and also complete control, whereas they would be averse to reducing the area of their estate, and especially to selling to individuals who, when once in possession, would be free from any control whatever, however badly they might manage their farms, or however undesirable they might prove as neighbours. In many instances, again, the landlords could not sell, though willing to let, by reason of the land being held in entail. Here, therefore, we get two further reasons for the limitation of the amount of land available for sale as small holdings, for the consequent higher proportions of price, as compared with rent, and for the preference which, as I submit, small holders, speaking generally, should show for tenancy over ownership.

CHAPTER XX

TENANCY AND A CONNECTING LINK

THE alternative to a system of peasant proprietary—always assuming that an increase in the number of small holdings is desirable—is, of course, to be found in tenancy.

Here the ideal would be to have a broad-minded, sympathetic land-owner, who was prepared not only to give small owners practical encouragement, but willing to go to any amount of personal trouble in order to make sure that all the arrangements were likely to be satisfactory. It must, however, be admitted that this disposition is far from being general among English land-owners; and while, on the one hand, there may be a certain number who, for a variety of reasons, would not favour the setting up of small holdings in their neighbourhood at all, there are probably more who, while sympathetic in the abstract, would not care to carry on separate negotiations with a considerable number of small holders, whether as purchasers or as tenants.

These adverse conditions are especially likely to be experienced when the land-owner happens to be a merchant or a manufacturer who has accumulated wealth from his business in the town, buys an estate in the country, and retires there to live a life of dignified

ease, with no greater aspiration left to him to achieve than that of ranking among the county families. Accustomed to an active commercial life, in which bargains are quickly made, decisions rapidly formed, and money turned over, it may be, many times in the year, such a person may find himself out of touch and not in sympathy with farmers whose very business—apart altogether from personal characteristics due to habit and temperament—requires them to act with deliberation in their dealings with the processes of Dame Nature, whom they may not unduly hustle. When a farmer has to decide six or twelve months in advance the plans on which the success or failure of his efforts may depend, and then wait patiently to see them mature, it is not surprising if he should adapt his ways of thought to his environment. The retired representative of active commercial or industrial pursuits may not understand these things and make sufficient allowance for them. Finding the farmers, from his point of view, 'hopelessly slow,' he loses patience, regards with aversion any idea of having to deal with a large number of them, and probably ends by resolving to keep for his own enjoyment the whole of the estate he has bought. So, while the county families may come in for an abundance of his smiles, these slow-going farmers can hope to get little more than their frowns.

Land-owners of this particular type—and they are steadily on the increase—represent a great difficulty in the way of any substantial extension of the small holdings movement, especially where a connecting link is wanting. The older class of land-owners—those whose families have been settled on the land for generations, have themselves engaged in farming, and thoroughly understand farmers and their ways—may

be more sympathetic; but even in their case something is often wanted to form the said connecting link with the would-be small holders, so that the land-owner (or his agent) shall not be put to the trouble of having separate business relations with a swarm of small tenants, or the aspirant be left with his hopes unrealized simply because of the difficulties that have arisen. It may also happen that the land-owner has not the capital available with which to meet the initial cost of cutting up any considerable portion of his land into small holdings, and would not care to give up merely the choice morsels which could be utilized without much expense.

In what way can the connecting link of which I have spoken best be secured?

Many well-intentioned persons have thought it might be established as the result of combined legislative and municipal effort, and Acts of Parliament have been passed with the idea of creating a body of small holders through the agency of the County Councils. But these efforts have been followed by very poor results. The stipulated procedure is so costly, so complicated, so hampered by formalities, restrictions, and regulations of almost every possible kind, that County Councils have, as a rule, hesitated to take in hand a business that was likely to give them a great amount of trouble, without any corresponding guarantee of permanent success. More especially was the great aim of the legislators responsible for the Small Holdings Act of 1892 the creation of a peasant proprietary in England, rather than merely the planting on the soil of a larger number of those individuals who were indifferent to ownership, provided they obtained land at a reasonable rent, with security of tenure and the prospect of fair compensation for the improvements they made. To

what extent political considerations may or may not have entered into the attempt to revive the old English yeomanry that had succumbed mainly to economic changes I need not stay to discuss; but certain it is that the one great aim of the Act was to facilitate the purchase, rather than the letting, of small holdings. A County Council was authorized by the Act to acquire land, divide it into small holdings of from 1 to 50 acres, erect buildings thereon, provide roads, fences, water-supply, and drainage; but the main idea was to sell such holdings, on an instalment system, to the persons wanting them. A Council was authorized to let the land only when 'of opinion that any persons desirous of themselves cultivating small holdings were unable to buy on the terms fixed by this Act, or where the land has been hired by the Council on lease or otherwise'; and even then the size of the holding so let must not exceed 15 acres, or be of a greater annual value than £15. Peasant proprietors were thus to be deliberately created by Act of Parliament, and that, too, at the risk, more or less, of the general body of the ratepayers. Some of the latter might very well have said to any County Council adopting such policy: 'If you are going to set up John Smith in business, so that he can grow cabbages in the country, why can't you set me up as a greengrocer, so that I can sell his cabbages for him in the town?'

Coming down to details as regards the Small Holdings Act, I find that a County Council is authorized to advance a would-be tenant four-fifths of the purchase-money on the security of the holding. But that arrangement still leaves the purchaser to provide one-fifth of the sum; and my contention is that a very small capitalist could employ even that one-fifth much more usefully in actual agricultural operations, if he

were satisfied with tenancy, than by practically burying it in the land in order that he could call himself 'proprietor'—a proprietor, that is to say, who stands with a four-fifths' mortgage, the annual payments on which still constitute, so long as they last, a 'rent' in another form, leaving him, besides, as 'proprietor,' to pay for all improvements and meet all the permanent charges.

Then, the remarks I have made with regard to the increase in the price of land in Denmark, and the effect of the State loans to facilitate purchase, would apply in special degree to the purchase of land by County Councils. The land desired would acquire an enhanced value instantly it became known that the purchasers represented a local governing body; and it is on this enhanced value—over and above any increase due merely to a greater demand for small holdings—that the peasant proprietors would pay.

It is, again, a matter of common knowledge that the work of erecting buildings and providing roads, fences, drainage, etc., as carried out by a public body, would assuredly cost more than such work as done by private individuals or a private company; so that here, once more, the County Council freeholders would pay on a higher scale.

The expenditure thus unduly swollen—and following on the sinking in ownership of money that should have been kept as working capital—must be met out of the return on the commodities produced from the land. There is no suggestion that the commodities themselves would have an enhanced value because they had been grown on County Council small holdings, and 'sentiment' would not count for much at Covent Garden or elsewhere, so that the peasant proprietor, created by Act of Parliament, would either have to work very much harder, in the hope of increasing his output, or else be

content with a smaller proportion of profit on his produce, after meeting charges which are higher than he ought, properly speaking, to be called upon to bear—if not higher than the land itself can bear.

The whole position is commercially unsound; but, even if it were not, there would still remain the consideration whether County Council management of small holdings is a thing to be desired. In this connection the fact is worth recalling that when, in the year 1834, the Poor Law Commissioners stated in their annual report that 'the immediate advantage of allotments is so great that, if there were no other mode of supplying them, we think it would be worth while, as a temporary measure, to propose some general plan for providing them,' they added: 'Where the system is carried on by individuals it has been generally beneficial; but when managed by parish officers it has seldom succeeded.'

These views of seventy years ago are still applicable to the general conditions to-day, especially considering that local representatives and parish officers have a multiplicity of duties to get through in the twentieth century that was unknown in the early years of the nineteenth. Even granting, too, for the sake of argument, that County Council control might succeed, there would still remain the question whether it would be desirable that large colonies of peasant proprietors should owe their creation to a popularly-elected body, whose return they might be able to control, and whose policy they might influence in their own favour, without adequate regard for the interests of the general body of the ratepayers, in whose name and at whose risk the schemes in question would be put in operation.

For these various reasons I am not disposed to look either to the Small Holdings Act of 1892, with its

complications and its strong prejudices in favour of peasant proprietary, or to County Council intervention, with its greater cost and its disadvantages in other directions, as affording the most desirable of links between land-owners and small holders in those cases where, from one cause or another, direct relations cannot be established between them.

For this desideratum I would look rather to the creation of co-operative societies, or other combinations, which would lease, or purchase, land in bulk and let convenient lots to small holders, giving them an absolute security of tenure—subject to their efficient management of the holdings—and a guarantee of full compensation for improvements, while exercising a controlling influence, in the interests of the community, over negligent cultivators.

The advantages of a system such as this have been shown in several localities where it has already been adopted; but the time has come for a much wider application of the general principle than has been the case hitherto.

In the first place, the system in question surmounts some of the chief difficulties felt by certain of the large land-owners. Sympathetic towards the general movement, they may shrink, as I have already shown, from opening up direct relations with a large number of small holders. But if they were approached by some trustworthy society or combination, which said, 'Sell or lease to us so much land, and we will guarantee you payment of price, or rent, and relieve you of every possible trouble, by ourselves undertaking everything that the conversion of the land into small holdings involves,' the scruples of the land-owners in question—and especially of the estate agents—should be greatly diminished, if not entirely overcome. A vast amount

of land in this country is at present yielding so poor a return that many owners who desired to increase that return, and were not unfavourable to the small holdings movement, would probably welcome the resort to such an expedient as the one here suggested.

The question whether, under these conditions, the land should be leased or bought by the intermediate combination is one the answer to which would depend on circumstances. If a satisfactory lease could be obtained, the matter would be greatly simplified, since there would be no need to raise a capital fund. On the other hand, my objections to the purchase of small holdings by small holders would not apply to the purchase, if necessary, of land by a friendly association, syndicate, or trustworthy company, which could command the necessary funds independently of the limited resources of those it would accept as tenants.

Whichever of these courses was pursued, the co-operative society, syndicate, association, or company, as the case might be, would at once relieve the land-owner of any trouble in selecting and controlling tenants, in making roads, fences, ditches, and drainage, in constructing buildings, etc. It would also open up a much larger area for occupation by small holders than if the land-owner, not caring to undertake all this work himself, simply let off for small holdings such land as he had that was immediately available for that purpose—land, that is to say, already having convenience of access, and, under existing conditions, commanding a higher rental on that account. Not only would the intermediary body probably have been able to make a better bargain for the land at the outset than a County Council could have done, but it would accomplish the work of development at a less

cost, thus being able to make proportionately lower charges to its tenants.

And tenants under this system the small holders would be—to their own distinct advantage. With security of tenure and guarantee of compensation for improvements, they might well be content, from an economic standpoint. It is true they would not have the sentimental satisfaction of calling themselves landed proprietors. On the other hand, they would be able to keep the whole of their bit of money for the purchase of stock, implements, seeds, and other necessaries for the profitable development of the holding, and the combination with which they started would be most useful in enabling them to effect economies in this direction. None of their capital would be buried in the land at the moment it was most wanted. They would have only nominal transfer charges, and no lawyer's bills to pay before they could enter into possession. They would know that they could stop on the holding as long as they pleased, provided they were not guilty of gross neglect. They would pay rent as rent, instead of rent in the form of mortgage charges, but they would not have to pay for various things which peasant proprietors must provide for themselves; and when, in the course of time, they had so far prospered that they could take any larger holding that might be available elsewhere, they would simply give notice to leave the plot they had outgrown, secure the compensation to which they were entitled, and start afresh on the larger plot, with none of the trouble and expense which they would be put to if they had to sell out one lot and buy another.

There is the greater need for such economy and simplification because, where the margin of profit from cultivation is so small, and the competition in the sale

of supplies is so keen, it is especially undesirable that such profit should be reduced still lower by unnecessary out-goings. Heavy legal expenses represent a charge upon the soil which modest cultivators who indulge in the sentimental luxury of ownership must cover by still more arduous labour; and there is many a small owner in certain parts of England who toils with his wife and children from dawn to sunset—leading a life akin to slavery, freeholder though he is—not so much to achieve the forlorn hope of future independence, as to satisfy the present demands of those who have enabled him to attain to the rank of 'peasant proprietor,' but have proved to be as bad as, if not worse than, the most exacting of landlords.

Following up the line of argument here advanced, I propose to give in succeeding chapters examples of three different types of connecting links, all deserving, I think, of consideration, and dealing consecutively with (1) the acquirement of allotments, as stepping-stones, by town workers, through a co-operative association; (2) the establishment of small holdings through a friendly syndicate; and (3) the formation of a company on commercial lines for the purpose of establishing home colonies of workers by actual settlement on the land.

CHAPTER XXI

THE AYLESTONE ALLOTMENTS

ONE of the gravest problems attendant upon urban and industrial life, and one that has been felt in an especially acute form in the town of Leicester, is being met there by a little body of working men in a way that, modest and unpretending though it be (suggestive, indeed, of the very humble beginnings of the 'Rochdale pioneers'), may well be commended to the attention of the world at large.

Stated in its briefest form, the problem in question is: 'How can artisans in industrial centres best supplement their earnings in times of trade depression, and at the same time fit themselves for some other occupation in life which they can take up when, for one reason or another, employment in factory or workshop fails them altogether?'

Leicester has certainly had good cause to ponder over this problem, for she has known long periods of slackness of trade, when the hours of labour have been cut down to five a day, or when there has been a cessation of work for weeks together. There are thousands of men in the boot and shoe and the hosiery trades of Leicester whose average earnings do not exceed £1 a week, and there are many who of late years have not been earning more than from 4s. to 8s. a

week—though even they have been better off than those out of work altogether.

Conditions such as these are bad enough, but they are not without hope, for depressed trade may be followed by a revival. Far worse is the position of the man who is thought 'too old' for factory life, and has no chance of returning thereto. What is he to do, then? To what use can he put the energy he still possesses in order to maintain himself and those dependent upon him?

Under the former system of handicrafts a man learnt a trade, and if his employer dispensed with his services he not only still knew that trade, but could often set up in business in a small way on his own account. With the advent of the factory system and its minute subdivision of labour the handicrafts are dying out, and the worker learns a 'trade' no longer. All he learns is to perform one or more of a long series of mechanical operations, until he becomes almost a part of the machinery itself, indispensable as a link in a chain, but of no greater utility (from an industrial standpoint) than a single link of such chain when standing alone.

These considerations presented themselves with special force to my mind when I visited at Leicester one of those huge boot and shoe factories which are the twentieth-century representatives of the individual shoemakers of old. Here, in the suburb of Aylestone, two and a half miles out from the centre of the town, I found a factory which employs 1,200 persons, and turns out every week from 25,000 to 55,000 pairs of boots and shoes for distribution—by the Co-operative Wholesale Society—to every part of the British Isles, if not a good deal further. The secret of this immense output is, of course, machinery. A complete pair of

boots could, it seems, be produced at the factory within, from start to finish, three hours. But in those three hours, or such other time as might actually be occupied, the pair of boots would go through something like thirty-five different hands, or separate processes, and, as far as possible, each process would be done by machinery.

Many of the machines are positive marvels of ingenuity. But, for my own part, I was still more impressed by the human machines, for such they seemed to be, who attended on the machines of steel and iron. I remember reading, in the days of my youth, a series of stories concerning learned shoemakers—individuals who read and who thought as they shaped and made a boot on their knee, and became men of learning, if not quite philosophers, in their way. But in the operation of that infinite variety of machines I saw in the Wheat Sheaf Factory at Aylestone there was no time for philosophy—no time for anything but for the performance by each worker, with the utmost expedition, of just that one operation on each boot or shoe, or section thereof, that was required of him from one year's end to the other.

So one gets to this remarkable outcome of the factory system—that out of the 1,000 or more men and women employed in one of these vast establishments, nominally as 'boot and shoe makers,' there might be scarcely half a dozen able to make a boot right out, and only a small proportion who would be qualified later on in life to set up even as village cobblers. The man, for instance, who was spending his days in pushing strips of leather under a press which moulded them into the required shape for heel-stiffenings might well be an expert operator in working that particular machine. But how, when eventually separated both from the machine and from the factory, should he still earn his living?

The Aylestone solution of the problem here presented is: The co-operative tenancy, under the most economical conditions, of allotments which will (1) give a factory worker healthy recreation; (2) enable him to supplement wages and decrease household expenses by the production of fruit and vegetables, which will, at the same time, give his family a better food-supply than would otherwise be possible; (3) afford him an opportunity, while still engaged in a factory, of gaining such experience of, and acquiring such taste for, market-gardening work that, when the factory failed him, he would still be able to contribute to the support of his family, if not keep them and himself altogether, by becoming a market-gardener, instead of having to depend on such odd jobs as he might be able to pick up as one of the unemployed.

The essence of the Aylestone idea is, in fact, 'Don't wait until you have been scrap-heaped. Prepare for another possible vocation while you still get in the factory such work as you can. Secure your allotment at once, and regard it as a preparatory school for a possible small holding. Spend your evenings and your Saturday afternoons there instead of in the public-house. Let your family have from your own garden vegetables fresher in quality and far more abundant in quantity than you would be likely to buy from green-grocer or street-hawker. If you keep your work in the factory you will still gain from your allotment. If you lose your factory work, or become weary of it, why, you will have something else to fall back on.'

On the soundness of these propositions there is no need for me to enlarge; but there is much that is interesting in the details respecting the particular form of their application at Aylestone, and especially in the resort there to co-operative principles in regard to tenancy.

For the actual origin of the allotments in question one must go back to about the year 1892, when certain influential gentlemen in Leicester secured some land on lease, and divided it into allotments, themselves remaining trustees. But in the course of time (and here I would point to a source of weakness in the trustee system) some of these gentlemen died, some removed from Leicester, and some who remained no longer took much interest in the management. Thereupon the tenants, who were mainly employés at the boot and shoe factory already mentioned or at the Leicester Corporation Gasworks, constituted themselves into a registered co-operative society, which rented the land afresh from the owners on the expiration of the previous leases.

The society now controls 172 separate allotments, covering 21 acres, independently of 6 acres held in reserve, and at present let for grazing. Some of the allotments are 1,200 yards in extent, but the majority are 400 or 500 yards. For the greater part of the land the society pays a rental of £3 per acre, the charge for the remaining portion being £4 per acre. This is regarded as substantially less than what a land-owner would have to charge if, instead of accepting a co-operative society as the one responsible tenant, he had the trouble, cost, and risk of dealing with 172 individual tenants. So the society is able to let to the actual occupiers at the rate of 2s. 8d. per 100 yards, inclusive of rates and taxes, initial outlay, cost of roads, water-supply, etc. The difference between the amount paid to the landlord and the equivalent of £6 8s. 2d. per acre charged to individual members covers working expenses. There is, besides, a share capital, represented by 250 shares (of which all the tenants have at least one) at 10s. each, though only 3s. has been called

up. Then, again, the financial operations are facilitated by the fact of the tenants—especially at first—being required to pay six months' rent in advance. Non-shareholders may rent an allotment when one is vacant, but a shareholder gets the preference. The average rent paid per allotment is about 12s. the year.

Operations were thus started by the society with only an extremely moderate demand on the financial resources of its members. The position was, in fact, very different from what it would have been had they resolved to buy, instead of renting, the land they wanted. The 21 acres, at £120 per acre, would have cost them £2,520, of which amount they would have been expected to pay down at least £600, leaving the remainder on mortgage. But when the society was formed, in 1901, the members could not have raised even £100. By accepting the principle of tenancy instead of ownership, and subscribing, as I have shown, the modest sum of 3s. each, they avoided any financial difficulty, and kept the remainder of their scanty savings for seeds, plants, tools, or manure. The society, as tenant-in-chief, has good landlords to deal with—one of them, Sir J. Rolleston, is a warm supporter of the movement and patron of the society—and the allotment holders, as tenants of the society, are really in a better position than if they had run the risk of financial embarrassment by becoming owners of the land they hold.

In confirmation of this view I would point to the fact that in the course of a single year no fewer than 29 out of the total of 172 allotments changed hands, owing to removals from the district or to other causes. Such frequent changes are characteristic alike of allotments and small holdings, and, where the land is owned by the person who is leaving, it may very well happen that he will lose on the sale, while the cost of transfer may

represent a comparatively substantial item for persons of limited means. Under the system adopted by the Aylestone Society the outgoing tenant and the incoming tenant first of all agree between themselves as to the amount the latter shall pay the former by way of compensation. They then jointly apply to the secretary for the transfer of the tenancy. Should the proposed new tenant be approved by the committee, the transfer is granted, the transfer fee charged being at the rate of 3d. per 100 yards. Thus on a 400 yards plot the cost of transfer from one tenant to another comes to 1s., this amount including 6d. for a stamp. Should the new tenant take over the share or shares of his predecessor (though this is optional), he pays a further 1s., including 6d. for a second stamp. Adding the amount of compensation paid to the outgoing tenant, the new-comer would, as a rule, not have to find more than £1 in order to acquire an allotment as a going concern.

Then the allotment holders, as tenants of the society, have various advantages, such as water-supply, which they would have to provide for themselves if they were owners, and they secure protection against negligent neighbours, who might tolerate such a growth of weeds as would become a source of trouble to the holders of adjoining plots. Each of the three 'fields' controlled by the society is under the direct supervision of a sub-committee of the holders thereon, whose duty it is, among other things, to report to the committee any case of negligent cultivation; and, inasmuch as one or other of them will be paying frequent visits to the allotments, the supervision thus exercised becomes a daily one. Should the complaint be upheld by the committee, the offender is fined 2s. 6d., and if the offence is continued, he will be liable to a three months'

notice to quit.* If all the parties concerned were owners of their plots there would be no remedy against a careless cultivation, and even if they all rented direct from the land-owners the control would not be anything like so effective.

As for the land-owners themselves, they have a distinct gain in accepting a registered and trustworthy co-operative society as their tenant in preference to a large number of individuals. They are sure of the rent in a lump sum whenever it is due, whereas, if the owners, say, of the land used for the Aylestone allotments dealt direct with 172 different tenants, they would not only be put to much trouble and cost, but would certainly lose to the extent of 20 per cent. on removals and bad debts.

The co-operative society relieves them of all worry, but does not itself run the same risk. Whereas the land-owner, or his agent, would be personally acquainted with only a very small proportion of the tenants, there would not be one among the latter, or even probably among the candidates for tenancy, with whom some member or other of the committee was not acquainted. The society can thus make a better choice of tenants than the landlord could, just as it can exercise better supervision over them afterwards. So, instead of losing 20 per cent., as the land-owners might do by direct letting, the society does not lose at the outside more than 1½ per cent. from bad debts, even if the percentage should exeed 1 per cent. All expenditure is kept to a minimum, the only paid officer being the secretary, who receives a modest allowance for the considerable amount of work involved in his duties; and so well managed is the whole undertaking that a profit of

* The full text of the regulations enforced will be found in the Appendix.

20 per cent. was realized in 1903, and one of 12½ per cent. in 1904 (when some heavy expenditure was found necessary), while one of 25 per cent. was anticipated for 1905. The sums dealt in are, of course, small. In the first year of the society's existence, as such, the receipts were under £10, and the financial statement for that year contains the intimation, 'Balance due to treasurer, 2s. 8d.' Even in 1904 the turnover was less than £200. Yet, with such modest resources as these, the society has found it possible to provide separate allotments just beyond the limits of a penny tramcar-ride of the centre of Leicester for no fewer than 172 working-men, with all the present and prospective advantages which, as I have ventured to affirm, those allotments are calculated to afford.

But to appreciate to the full extent all that is being done, a visit to the allotments themselves is essential, and such visit I paid under the escort of the president, Mr. Jeffs, himself a worker in the Wheatsheaf Boot and Shoe Factory and tenant of an allotment.

The first fact which strikes the visitor's attention is the great variety of produce these amateur market-gardeners are able to grow on such comparatively small patches of ground. 'Thanks to vigorous spade-work,' said Mr. Jeffs, the 'productiveness of the soil is increased fourfold'; and his own allotment was sufficient in itself to confirm the truth of his assertion. Here, in the course of the year, he had grown, on 600 square yards of land, potatoes, peas, brussels sprouts, cabbages, kale, kidney-beans, carrots, parsnips, onions, black currants, red currants, strawberries, various herbs, and a choice collection of flowers. Such of the crops as remained looked, too, in very good condition, a fact which Mr. Jeffs accounted for by his belief in the principle and practice of deep cultivation.

Then, among other allotments, I saw one of 400 yards, the tenant of which is a youth of twenty, who is employed in a local timber-yard, and pays a rental of 10s. 8d. a year for his holding. He cultivates it entirely himself, and he gets back probably much more than the amount of his rent by selling cut-flowers, of which he grows a considerable quantity, including many choice varieties. But he finds room on his diminutive holding not only for flowers, but also for red currants, black currants, gooseberries, two varieties of kale, potatoes, brussels sprouts, savoys, cabbages, kidney-beans, celery, onions, and tomatoes.

Another holder, still a young man, but with the advantage of having worked under a market-gardener, started with an allotment of 400 yards, which he devoted to the growing of rose-trees. He has succeeded so well that he now rents 1,600 yards of land from the society, and has also acquired close by 400 yards of freehold, which he uses for glasshouses, devoting his whole time to the business.

Most of the vegetables grown are used in the households of the growers, and wives and children get a plentiful supply, not only of ordinary varieties, but also of kinds which would otherwise count as luxuries for working-class families. It is sometimes a question not alone of an abundance, but of a superabundance, the surplus being then disposed of to neighbours, who appreciate it so much that they are ready to pay more for what they know is absolutely fresh than they would give to the street-hawker. Experiences of this kind, coupled with the example of the rose-tree-grower mentioned above, have served to strengthen the idea that the allotments should be regarded as stepping-stones to such small holdings as would support a man entirely. I found that Mr. Jeffs favoured this idea, and I asked

him to tell me what amount of land he thought would be sufficient for anyone having his own experience of market-gardening, as derived from an allotment, to live upon. The answer was prompt and precise: 'Two acres. But he would want some help in the summer,' Mr. Jeffs added, 'and he would be likely to get much better results if he formed one of a number of two-acre holders who joined together so as to have horses, carts, and implements in common, and so as to buy their necessaries, if not, also, to sell their produce, in common'; and the eyes of a worker who had grown gray in the toils of factory life positively sparkled at the idea of such a prospect being opened out to him.

Meanwhile, the holders of allotments through the Aylestone Society are, at least, being prepared to avail themselves of wider possibilities in the future, and, if factory-work fails them, only the opportunity will be necessary for enabling them to start afresh—somewhat further out from Leicester, where land is cheaper—as a little colony of market-gardeners. Meanwhile, also, they add the equivalent of from 3s. to 4s. a week to their wages, their families are better nourished, they themselves are in more vigorous health, while, since they have learnt to find relaxation in gardening, they have saved the money they once spent in pursuits much less remunerative and beneficial.

This story of what has been done at Aylestone may, I think, well be commended to public attention. It shows what a body of clear-sighted and energetic working men can do for themselves, with the scantiest of means, but acting on the principle of 'self-help' rather than of 'State-aid'; and what Aylestone has done ought to be quite capable of accomplishment elsewhere. In the suburbs of most large towns or cities there is land

which may some day be required for building purposes, but at present is lying more or less idle—'awaiting development' at what land-owner or builder may regard as the psychological moment. That moment may not arrive for another ten or twenty years; but even if the land-owner were now in a position to sell, he probably would not sell at the agricultural value for the purposes of allotments or small holdings, while either he might not care for the trouble of dealing individually with 100 or 200 allotment holders as tenants for the time being, or his scale of rent, to cover expenses, agents' commission, losses, etc., might be unduly heavy.

These difficulties would be overcome by the intervention of a co-operative society working on Aylestone lines, and taking, if possible, a lease for such period as could be mutually arranged. It might so happen that the lease could not be renewed beyond that period, as the time for building operations would then have arrived; but, meanwhile the land-owner would have had his guaranteed rent from the society; the land would be all the better for having been cultivated; and the working-men renting the allotments (situate probably within easy reach of their dwellings) would not only have had all the immediate advantages I have enumerated, but, what is still more to the point, would have been much better qualified to earn a livelihood on the soil, in case of need, than if they were without the practical experience and the taste for rural pursuits which had followed from their cultivation of allotments while still in the ranks of 'town workers.'

The example set at Aylestone has since been followed by the Newfoundpool (Leicestershire) Co-operative

Allotment Society, Limited, and the Woking and Maybury (Surrey) Allotments Society, Limited, both affiliated (as is also the case with the Aylestone Co-operative Allotments Society, Limited) with the Agricultural Organization Society.

I may also mention that in January, 1906, a body of working men, holding land at Winchester (Hants) from the Ecclesiastical Commissioners as allotment gardens, sent a memorial to that body (by whom most of the land suitable for allotments within a reasonable radius of the city is owned), pointing to the present uncertainty of their tenure, stating that on October 4, 1905, they had held a meeting at which they formed themselves into an Allotment Holders' Association, and proceeding:

1. It is well known that the working man of the present date finds it very hard to pay his way on account of high house-rent and provisions, compared with his low wages, and especially owing to the distress throughout the country, through so many of the working class being out of employment; and, were it not for the fact that many of these have the advantage of an allotment garden to provide vegetables for their families, matters would be far worse than they are at the present time.

2. By having a piece of land many of the working class have not only been able to provide themselves with vegetables, but have been the means of growing sufficient to supply some of their unfortunate community with the necessaries of life, and found them employment on their allotments, remunerating them as far as lay in their power, which has been the means of many a man being engaged at a healthful occupation who would probably have been loafing the streets; and it is seriously felt that, should the working class be deprived of their allotment ground, many of those who now spend all their spare time on their gardens would not be otherwise engaged.

3. Gardening has been admitted by professional medical men to be one of the best and healthiest recreations, and no doubt the general good health among the working class of this city has been considerably due to many of the men and members of their families being engaged at it.

4. The land now let as allotment gardens at Fulflood, St. Cross, Highcliffe, and Winwall has notice-boards upon it, stating it can be let on lease for building purposes; but, if what we hear is correct,

that it is intended for the erection of villas only, at a rental of £30 per annum, we feel sure that at present there can be very little demand for such houses, though there is, no doubt, a very great demand for houses for the working men at a rental of 6s. or 7s. per week.

5. We humbly pray that, under the circumstances, you will, if possible, allow the land to remain let as allotment gardens, and, should you feel disposed to do so, the allotment holders are prepared to register themselves into an association, and take over the land on a lease of seven, fourteen, or twenty-one years, and to get rules and regulations passed by the Registrar.

I am glad to be able to add that this memorial has been received most sympathetically by the representative of the Ecclesiastical Commissioners. It is pointed out, in reply, that some of the land in question is now too valuable to remain devoted to allotments, while building has been started at the present time on 2 acres at Fulflood, mainly with the idea of finding work for the unemployed. But the Commissioners will be quite prepared to consider the question of allotting another field to those holders who are displaced by the building operations.

Should the Winchester allotment-holders form themselves into a registered association on the lines suggested, they would doubtless find it an easy matter to get their land on lease for a fixed period, on specially favourable terms, thus avoiding the element of uncertainty to which the memorial refers.

CHAPTER XXII

SMALL HOLDINGS SYNDICATES

No more enthusiastic and, at the same time, more practical supporter of allotments and small holdings is to be found among the great land-owners of England than Lord Carrington, who, especially at the outset of the work he undertook in this direction, showed a courage, a zeal, and a willingness to run what land-owners and their agents generally would consider no little risk, of which the world at large has but little idea. Happily, his efforts met their deserved success, for in an article contributed by him to the *Nineteenth Century* in March, 1899, on 'The Land and the Labourers,' he said:

> My practical experience of over thirty years is that small holdings and allotments, not only keep villagers on the land, but that they are, and always have been, a financial and social success. With me they have succeeded, not only round an artisan town, but equally on the clays of North and Mid Bucks, on the chalk hills and in the valleys of South Bucks, on the light lands and ordinary soils of North and Mid Lincolnshire, and, best of all, on the grand land of the Lincolnshire fens.

Lord Carrington has not been converted to the idea of a peasant proprietary, for though Lincolnshire, with its rich soil and abundant opportunities, is an ideal county for small holders, he gave in his article a melancholy picture of Lincolnshire freeholders who

have bought land, at an excessive price, with borrowed money, and been ruined by the exorbitant interest. But, notwithstanding his own strong sympathies with the small holdings movement, he has fully recognised the value of the service which a connecting link between landlord and small holder may serve, as the story I have now to tell will show.

In 1892 there was formed at Spalding Common—a thickly populated suburb in the west of Spalding (Lincolnshire)—a Provident Allotments and Small Holdings Club, which had for its object, 'To enable persons desirous of obtaining land for allotments and small holdings to assist each other by combination with a view of (1) treating collectively with local authorities or private owners; and (2) holding a reserve fund, if necessary, for rent.' The idea of such a club adapted itself the more readily to the minds of Lincolnshire labourers and small cultivators because almost every Lincolnshire village has a friendly society in one form or another, and the payment to a Provident Allotments Club of small periodical sums towards the renting of land would be no more than supplementing the subscriptions regularly paid for sick benefits on life insurance. So the club prospered, and an application for land was made to Lord Carrington, who arranged with one of his tenants to let direct to the members, in acre lots, a field 33 acres in extent. In the following year (1893) more land was asked for by the club, and Lord Carrington allotted to the members a field on an adjoining farm. The 35 acres in this field were divided in acre lots among as many tenants, who, in this instance, were to pay their rents to the estate agent.

But that gentleman's offices were several miles distant from Spalding, and, apart from the inconvenience, from an agent's point of view, connected with a system which

necessitated the dealing with thirty-five persons instead of one, the exercise of effective control, from such a distance, over what was happening in the neighbourhood of Spalding, became a matter of no little difficulty. Under these conditions the agent could not be personally acquainted with all the applicants for tenancy; he could not guarantee that he always selected competent and trustworthy men; he could not keep close watch over the cultivation of the holdings, and he could not avoid losses of rent when tenants went away without giving notice or without paying what they owed.

These experiences illustrate what may well happen when a great land-owner, however beneficent in his intentions, seeks to operate a large scheme of allotments and small holdings himself, and they may seem to excuse the attitude that land-owners have sometimes taken. But in this instance a way out of the difficulty was found by the formation of the South Lincolnshire Small Holdings Association. What had already been done by Lord Carrington had greatly stimulated the demand for allotments and small holdings, especially when it was seen that the tenants were getting land at reasonable rents, with security of tenure, and were able to apply all their surplus cash to the immediate development of their holding, instead of paying it away as a first instalment for purchase. A great opportunity presented itself at Lady Day, 1895, when the Willow Tree Farm, 217 acres in extent (also on Lord Carrington's estate) became vacant. Individual members of the club wished to have separate portions, but it was clearly preferable that the farm should be dealt with as a whole; and here it was necessary to create an intermediate authority, or principal tenant, who would take over the entire farm on a lease, and arrange payment of tenant right, etc.

The solution of this particular problem was brought about by Mr. R. Winfrey, who for a number of years, and especially as chairman of the Small Holdings Committee of the Holland (Lincolnshire) County Council, had taken an active interest in the development of small holdings. It had been on his suggestion that the Spalding Common Club was formed. This gentleman now secured the co-operation of five friends, and, with them, formed a syndicate, to which the title of South Lincolnshire Small Holdings Association was given. To this syndicate Lord Carrington let the farm in question on a seven years' lease (subsequently renewed). But the members of the syndicate, or association, subscribed no capital, and there has been no need for them to do so from that day to this. All they did was to guarantee, jointly and severally, the payment to Lord Carrington of the rent for the entire farm. On this condition they became the principal tenant, and it was for them to sublet the farm in small holdings, apportion rent and expenses among the occupying tenants, and collect from them the money to be paid to Lord Carrington. Nominally, the association is responsible for all losses; but, practically, there have been no losses for it to bear.

The Willow Tree Farm was divided among about 100 tenants in holdings which range from 1 to 35-acre lots. Then, in 1902, Lord Carrington offered to the association a twenty-one years' lease of the Cowbit House Farm, 265 acres in extent (on its becoming vacant), and he further expressed his willingness to transfer to the association six detached allotment fields which he had previously managed through his estate agent. Accepting these further responsibilities, the association now had the control of 650 acres of allotments and small holdings, ranging from rood plots to

40-acre holdings, and capable of accommodating over 200 separate tenants. Thus the connecting link was at last fully established, and the difficulties which Lord Carrington had previously experienced were no longer encountered, while a substantial impetus was given to the general movement.

One fact of paramount importance which must be borne in mind is that Lord Carrington let the farms, of 217 acres and 265 acres respectively, to the Small Holdings Association for precisely the same rent as he would have asked from two large farmers. Even allowing for increased cost of management, etc., the average land-owner would naturally expect to get a higher return from his land when it is occupied by 200 tenants than when it is rented by one or two. By pursuing the course he adopted, Lord Carrington enabled the association to start with a great initial advantage in the apportionment of the rents to be paid by the occupying tenants.

Then, as the half-dozen gentlemen forming the association had, though guaranteeing Lord Carrington his rent, themselves subscribed no capital, they had no interest to provide for, and they sought for no pecuniary profit on what they had done. So the rents to be paid by the occupying tenants need only be such proportionate amounts as would make up the sum total to be paid to the land-owner, *plus* an addition of about 10 per cent. to cover certain expenses. Mr. Winfrey, who fills the rôle of managing director, receives no fee or remuneration in any form, but there is the commission paid to the very competent steward and surveyor to the association, Mr. J. H. Diggle, to be covered, and one or two other things besides. The entire management is practically in the hands of Mr. Winfrey and Mr. Diggle, the association meeting, as a rule, once a year

only, to receive an annual report and balance-sheet, and these ought to be regarded as satisfactory, considering that the losses have hitherto amounted to scarcely 1 per cent.

There is also the important fact that, notwithstanding the addition of the said 10 per cent. to the rents charged to the occupying tenants (to meet the expenses of management) as compared with the amount paid to the landlord, the rents so charged are still something like 25 per cent. below those paid by other small holders in the same district, who hire in the open market the small amount of land there available.

Here, therefore, we see one practical result of concerted action. There are others besides. Some of the tenants wanted to have a strong wooden bridge constructed over an open drain which runs between the two farms. The cost of this bridge was estimated at £100. The tenants who would benefit were willing to pay an additional 1s. per acre per annum on their rent until the cost of construction had been covered, and on this understanding the gentlemen forming the syndicate obtained an advance of £100 from the bank, once more holding themselves jointly and severally responsible for repayment. So the bridge was duly constructed, Lord Carrington agreeing to take it over at a valuation on the expiration of the lease. On another occasion a new road, costing a further £100, was made under similar conditions. In the same way the syndicate provides fences, supplies and paints any extra gates required, and maintains the ditches in good order, distributing the bare cost among the tenants directly concerned. Not only is this an advantage to the tenants, but for the landlord it means that the estate is maintained in better condition than would be the case if each of the 200 tenants acted independently,

or even than it was when each farm had only a single tenant.

Still another fact of special importance has reference to the buildings on both the Willow Tree and the Cowbit House Farms. It is often assumed that, in the cutting-up of a large farm into small holdings, special difficulties are presented by the risk of not finding a good tenant for the farmhouse, and by the question as to what shall be done with the farm-buildings. But these difficulties have been very readily overcome. The Willow Tree farmhouse was adapted at little cost for the use of two tenants, and Cowbit farmhouse is let to one of the tenants, G. R. Scott, who began work on the land at the age of eight years, spent his youth as a farm servant, left the land to work as a railway employé, returned to it as horseman, was next a shepherd, worked his way to the position of foreman, became a small holder, and now farms 40 acres of land on the estate. As for the house, its condition of neatness and scrupulous cleanliness, as I saw it on the occasion of a surprise visit, would have done credit even to a Dutch housewife. The farm-buildings have been so adapted, at a cost of about £100, that no fewer than eight of the small holders have each their separate storeroom, stable, yard, etc., while five have each a section of the cart-hovel. There is also a stack-yard, which is occupied in common, and here I saw stacks in course of construction by nine different tenants.

Instead of there having been any trouble in disposing of the original buildings, the chief fault I should be disposed to find is that there are not buildings, and especially not dwellings, enough on the estate. Many of the tenants live two or three, and a few of them even seven miles by road away from their holding.

There is evidence here of keen appreciation of the advantages offered; but these vast fenlands of South Lincolnshire, stretching for miles in every direction, would support a far larger number of people, and it would be a great boon to a considerable proportion of the small holders if they could be provided with modest dwellings on the land they cultivate. At one frontage of the Willow Tree Farm I saw half a dozen cottages in course of erection by Lord Carrington; but there is plenty of room on Cowbit House Farm for others, and until these have been provided there will still be something wanting to complete the scheme and for visitors to criticise.

Many of the holdings are only modest allotments, not intended to do more than fill up the time of 'sons of the soil' working for neighbouring farmers, and to serve as first steps to farms of their own. But others there are which claim the full energies of their holders, some of whom are achieving distinct success. Experience shows that, as a rule, from 50 to 60 per cent. of the small holders thrive and do either fairly well or very well, from 20 to 30 per cent. neither advance nor recede, and from 5 to 10 per cent. are total failures. Much, of course, depends on the men themselves; but, as showing the possibilities of the situation, I would mention the case of one tenant who began in 1895 with 8 acres of grass land, 4 acres of arable land, and a few stock. He now has 35 acres, partly grass and partly arable; he breeds for sale stock of all descriptions—horses, cattle, pigs, and poultry; he feeds into his stock what he produces on his arable land; and he is now quite equal to taking over 100 acres, if the association could only provide him with them.

There is just one additional fact to be mentioned in connection with the South Lincolnshire Association:

that the tenants voluntarily agreed to subscribe to a guarantee fund a sum equal to half a year's rent of each holding, large or small, up to 4 acres, in order that such fund should be available to indemnify the six members of the association—who had made themselves responsible for the payment to Lord Carrington of upwards of £1,000 a year rent—should there be any loss in respect to land let to the members. The fund, which now amounts to £225, further constitutes the capital of the Spalding Agricultural Credit Society, into which the Spalding Common Provident Allotments Club has now been transformed. The society, which is affiliated to the Agricultural Organization Society, grants loans, at 5 per cent. interest, for the purchase of stock, etc., and for reproductive purposes, 4 per cent. being paid to the members who have advanced the money. The steward to the association is honorary secretary to the Credit Society.

The success of the South Lincolnshire experiment led to the starting, in 1900, of the Norfolk Small Holdings Association by a syndicate of gentlemen, which included Lord Carrington, Mr. F. W. Wilson, M.P., Mr. Winfrey (president), Mr. A. Jermyn, of King's Lynn (honorary secretary), and several others. But in Norfolk no land was available for leasing, as in South Lincolnshire, and the policy of purchase had to be adopted instead. The conditions, therefore, in Norfolk are somewhat different. Three farms were bought—at Swaffham, Watton and Canbrooke, and Whissonsett—representing a total of 337 acres, at a cost (including conveyancing, enfranchisement of copyholds, initial repairs, fencing, and adaptation of the land for about sixty holdings) of £8,709. Here, therefore, it was a matter not merely of so many gentlemen signing a guarantee for payment of rent, as in South Lincoln-

shire, but of raising, or becoming responsible for, money for actual purchase. What happened was that the syndicate subscribed £1,750 (the interest on which has each year been placed to a reserve fund), they obtained an overdraft from the bankers, and they mortgaged the estate for the balance.

The combined effect of having to raise a capital sum and of meeting the various legal expenses in connection with the purchase, mortgaging, etc., of three separate farms, before possession of the land could be obtained, was that the Norfolk Association, as buyers, could not offer such easy terms to their tenants as the South Lincolnshire Association—themselves only renting from the owner—had been able to make with theirs. All the same, the Norfolk tenants have done much better through their association than they could have hoped to do for themselves, and the demand for the land is much greater than the supply.

Alike in South Lincolnshire and in Norfolk, the tenant gets complete security of tenure, subject to his fulfilling certain conditions. The tenancy can be determined by six months' notice on either side, to expire on October 11 in any year, and it is stipulated in the agreement that, in the event of such determination of the tenancy, the amount of the tenant-right due to the tenant (as compensation for unexhausted improvements) shall, if not otherwise agreed upon, be fixed by valuation. The tenant agrees to 'cultivate and manage the land in a good and husbandlike manner,' and six months' notice can, of course, be given to him should he neglect so to do. It is further provided that if the tenant should fail to pay his rent within twenty-one days of the date at which it is due, or if he should fail to keep the terms of the agreement, the landlords—as represented by the association—are

to be at liberty to retake immediate possession, without any payment of compensation.*

Mr. Diggle, who is steward and surveyor to the Norfolk Association, as well as to that in South Lincolnshire, says of Whissonsett, in a pamphlet he has issued on 'The Creation of Small Holdings in Lincolnshire and Norfolk,' that 'practically the whole of the small village has an occupation interest in the farm, the tenants including the labourer who worked for the retiring farmer, the village shopkeeper, carpenter, and innkeeper, the working-farmer's son living at home, the assistant overseer and shoemaker, and the son of the parish churchwarden. Farm foremen, or working farm bailiffs, who, after some years of service, and having probably saved £50 to £100, desire to go into business on their own account, make excellent tenants of the larger holdings, and are, indeed, a very deserving class.' Mr. Diggle further says, in his pamphlet:

> The existence of the following conditions has largely contributed to success: (1) The tenants are men who understand the cultivation of the soil, and have not been failures either in agriculture or in other walks of life. (2) The majority of the Lincolnshire tenants hired an acre first, and made that a success before taking a larger quantity. (3) The land is of good average quality, adapted for small holdings, and, as to four-fifths of it, within a reasonable distance. (4) The occupiers can grow what cropping they like in reason, have fixity of tenure—subject to good management—and can use the whole of their capital to farm with. (5) The rents are reasonable and appreciably lower than the rents paid by tenants of small holdings hired in the open market.

In comparing the respective conditions of the two sets of holdings, it may be argued that, although the South Lincolnshire tenants—whose land has been leased by their association—pay lower rents than are charged to the Norfolk tenants—whose association bought the land they hold—there is no guarantee in

* See Appendix.

the case of the former, or in any similar case, that the rent charged to the intermediary body may not be raised by the land-owner when the time comes for renewing the lease. Although, some persons will say, the present land-owner may be quite sympathetic and reasonable, it is possible that his successor will be neither, and may raise the rent on the tenants' own improvements.

Criticisms such as these have a direct bearing on the question whether an intermediary association should lease or purchase. At first sight the objection to the former course appears to be well based; but, on looking closer into the facts and probabilities, it will be found to have less weight. In the first place, the present lease of the South Lincolnshire Association with Lord Carrington is for seven, fourteen, or twenty-one years, the option of renewal being on the side of the association, whose members are thus secure for practically a generation. Should the lease not be renewed at all at the end of the present possible term, the sub-tenants will, nevertheless, have had a good innings; the land-owners will take over important improvements (such as the bridge already mentioned) at a valuation, while the minor improvements by the tenants—fences, gates, etc.—will be of no great value at the end of the term.

Then, one must assume that no small holdings syndicate or registered society treating with a land-owner for a farm would pay him a rent in excess of that paid for other farms on the estate, solely because they desired it for small holdings. If, therefore, the land-owner were unreasonable, he would probably have the land left on his hands by the syndicate. But he might then (it will be said) instruct his agent to take over the land, and raise the rents of all existing

tenants. He certainly might; but I think it equally certain that the agent would dislike the idea of collecting from 100 or more tenants instead of one; that he would want to be paid a higher commission; that losses of rent would be sustained; that the land-owner would be called on to do a good deal more in the shape of improvements; and that in the long-run he might not gain anything financially. The average large landlord, also, would hardly care to incur the risk of losing his good name in the county. A small land-owner—and especially one devoid of conscience—might; but a responsible syndicate would not be likely to deal with such a person, as it is the essence of the South Lincolnshire system that the syndicate should be able to lease large farms on an estate, at the same rent as would be charged to a large farmer.

The risks involved in tenancy by the intermediate association, in preference to purchase, are not therefore so serious as might be supposed; while against them may be set the greater simplicity in procedure, the absence of any necessity to raise capital, and the charging of lower rents to the actual occupiers. There would, perhaps, be greater reason for criticising the South Lincolnshire Association on the ground that it rests on the life of one man—Mr. Winfrey, now M.P. This is admitted to be a weak point, however long that gentleman may, happily, be spared to preside over the well-being of an organization to which he has devoted so much energy; and as I write these lines I hear that a proposal is being mooted for changing the association into a registered co-operative body. Another important point is that such groups of tenants should, emphatically, form themselves into co-operative agricultural societies for the purposes of combined purchase, transport, and sale.

Whether the tenancy or the ownership system be adopted by the intermediary syndicate or association, we still see that, provided a land-owner is sympathetic, or suitable land can be bought on the market; provided gentlemen of position are willing to incur the risk involved in such arrangements as those described; and provided, also, individuals desirous of becoming small holders will act together and be content with a secure and reasonable tenancy—then, under these conditions, there is the possibility of putting people on the land by combined effort, at either a small outlay or no outlay at all, with comparatively little trouble, and with none of the complications necessarily attendant upon any attempt to create small holders, and especially small owners, by Act of Parliament.*

* In *The Tribune* of January, 27, 1906, details are given of a scheme which is being promoted by an Essex land-owner for setting up a colony of small holders on co-operative lines between Ipswich and Manningtree. He will begin by starting twenty suitable young men with 1 acre each, leased to them for ninety-nine years at £1 per annum. He will also assist promising tenants in building their house, stocking their farm, etc.; but a condition of the tenancy is that each colonist must become a member of an association which will be responsible to the land-owner for the rent of the whole of the holdings. A central hall will be provided, where agricultural and kindred topics can be discussed. Purchase of necessaries and sale of produce will be on co-operative lines. Costly agricultural implements will be owned in common. Negligent cultivators will be paid off by the community and ejected; others, leaving the colony, can sell out at a valuation. Colonists may hope to extend their holdings to 4 or 5 acres. The amount of land set aside for the purposes of the scheme is 1,000 acres.

CHAPTER XXIII

SMALL HOLDINGS BY 'PRIVATE ENTERPRISE'

It will have been seen, from what I state on p. 67, that in the conversation I had with Mr. Hugh Andrews at Toddington Manor, I found him distinctly sympathetic towards the small holdings movement, but he felt, I go on to say, 'that such undertakings should be entrusted to syndicates or powerful combinations, with capital sufficient to enable them to grapple with the housing problem.'

The suggestion here made is one that, to my mind, is deserving of very serious consideration. It offers the same idea of an 'intermediary' as, in principle, I have already sought to expound; but it carries that idea further in the importance it deservedly attaches to the inclusion of 'housing' in schemes for the promotion of land settlement. So long as provision for actual residence on the land is not included, small holdings, of whatever dimensions, are still but little better than allotments. They serve an extremely useful purpose, but they do not entirely meet the necessities of the situation. It may be that a large proportion of the existing small holders do not want to live on their holdings, provided that these are within reasonable distance of a town or village. In this case they prefer

to dwell in the town or village for the sake of such 'life,' or, at least, such social intercourse, as it may afford, working on the land during the day, and having the opportunity of a little recreation in the evenings. There are, however, many who would be quite willing to discard the attractions (such as they are) of village life, and settle down on the land, while alternatively the holdings might be so far away from any village or town that they could be cultivated efficiently only by persons actually living upon them. Here it would be a question of creating a new colony, the dwellings in which would represent a fresh village, thus disposing of any feeling of isolation, and satisfying the natural desire for human fellowship.

Any comprehensive scheme for a greater rural settlement should, therefore, be based on the principle not only of getting land for cultivation, but also of assuring adequate housing accommodation, either (*a*) on the land, or (*b*) in the neighbouring villages, according to the circumstances of the case. The question does not arise at Aylestone, where the allotments are small, and dwellings are plentiful within a distance of a mile or so. It does arise (as I have already intimated) to a certain extent in South Lincolnshire, and it arises still more in such a centre as Evesham. There one finds one of the most desirable of districts from the point of view of the small cultivator, and, in spite of all the progress of late years, great scope for expansion still exists, provided that the new-comers do not want to settle in the immediate vicinity of the town, where the best plots have already been taken up, but are willing to go further afield. Evesham, however, affords a very practical example of the two-fold nature of the general problem. Available land there may be, but the supply of available houses would seem to be exhausted. In

the early part of 1905 it was found that there was then scarcely a single cottage vacant within a radius of six miles of the town. It was found also that many of the houses were overcrowded, and that the further development of the Vale of Evesham was being much retarded by the absence of an adequate supply of cottage homesteads.

The general situation in regard to small holdings at Evesham is well brought out in the following statement, drawn up by Mr. Raymond Webb at the request of some local gentlemen who contemplated the formation of a syndicate practically on the lines suggested to me, though quite independently, by Mr. Hugh Andrews:

LAND AGENCY OFFICES,
EVESHAM,
April 3, 1905.

DEAR SIR,

In accordance with your request, I now beg to give you a short report upon the small holdings in the district, with which, as you are aware, I have had about eleven years' personal experience, during which time I have made careful inquiries and observations on the industry. From my late father, who had more than fifty years' experience of small holdings, I also gained a great deal of information on the subject.

At present I act as agent for twenty-four small holding estates in the Vale of Evesham, upon which are about 850 tenants, renting, roughly, 1,800 acres, the average size of each holding being rather more than 2 acres. The majority of these tenants were, in the first instance, farm-labourers, receiving from 9s. to 15s. per week. Now many of them own the house they live in, as well as the land upon which they work.

The men, their wives and families, as a rule are most industrious, commencing work in the summer at sunrise, and keeping on until dark. In the winter the men are at work whenever the weather will permit. The men do most of the hard work, as well as taking the produce either to the saleyards (of which there are two now in Evesham), dealers, or railway-stations. The women and children do hoeing, pick flowers and vegetables, tie up flowers, onions, thyme, etc.

As regards paying the rent, I find small holders, when the land is once cleaned and planted out, pay up wonderfully well, with but few exceptions, and then there is in most cases sufficient security

on the land in the shape of ingoing to satisfy the rent. I have specially noticed that the men pay their rent and get on much better in localities where there are no expensive amusements or public-houses, and for this reason houses built upon the land, away from temptation, have an advantage.

With regard to the thousands of acres of land now under cultivation in the district as small holdings, originally, with but little exception, the whole was let and cultivated as farms at rentals varying from a few shillings up to 30s. per acre, and a great proportion very indifferently cultivated. The same land is now let in small holdings at rents varying from 25s. to £10 per acre, and cultivated in a most satisfactory manner. The demand for suitable land is continually increasing. As the older tenants bring their holdings under a permanent crop, they require more land for growing crops in the open. The younger generation also require land, and there has, in addition to this, been a steady influx of gentlemen's sons, retired tradesmen, and townspeople, who have been attracted by the healthy and remunerative occupation. As an instance of the demand for more small holdings, I had about 40 acres of farm land to let out last Michaelmas, three miles from Evesham, lying in a low position, and only suitable for open cultivation. A few years ago this land had been let at 7s. 6d. per acre for farming purposes. I have now let it to good tenants, on a rising rent, commencing at 25s. per acre for the first year, 30s. for the five successive years, and finally £2 per acre. In addition to this, I had to refuse quite a dozen applicants for the same land. At Michaelmas next I have 70 acres of land adjoining that previously mentioned to let on the same terms, together with six cottages, and already have applications for the whole. This will show you what a demand there is for suitable holdings in the district.*

One of the greatest drawbacks is the shortage of cheap-rented cottages. If cottages could be built on or near the land, containing a good kitchen and scullery, some with two, and others with three, bedrooms, to be let at a rental of about £8 to £10 per annum, I am confident that hundreds would be taken up immediately they were built. Almost every village within a radius of five miles of Evesham is short of cottages, and I am continually being asked for them. At the present moment I am not aware of one that is vacant. In many cases the cottages are occupied by two families owing to this shortage. If only such a cottage as I have described can be built, the small holding industry will increase by leaps and bounds.

I could say a great deal more on the subject of small holdings,

---

* It is estimated that the present acreage under small holdings of from 1 to 10 acres in the Vale of Evesham is 20,000, and that the number of cultivators is 3,000 or more.

but in a report of this description can only touch on a few of the most important points.

In conclusion, I may say that, if suitable land can be provided (and there is plenty to be had in the district), and let in small holdings, on a fair tenancy agreement, at a reasonable rent, with such cottage accommodation as I have described, the increase in the small holding industry will be enormous, and we shall see many who have gone into the towns come back to the land again.

I am,
Yours faithfully,
RAYMOND WEBB.

The inquiry thus made is likely to have a very practical outcome. During the course of 1905 the syndicate in question bought up five small estates, comprising an area of about 1,000 acres, in the neighbourhood of Evesham, with a view to cutting them up, partly into small holdings of 3, 5, or 10 acres each, and partly into small farms of from 40 to 50 or even 70 acres each, principally for market-gardening, fruit-growing, and dairy purposes. With their local knowledge, and as private individuals, the members of the syndicate were able to purchase the land at 'bottom prices'—prices, in fact, much lower than a local authority buying in the open market would have had to pay—and with their practical experience, they bought only such land as they knew to be suitable for the desired purpose. On the holdings that are sufficiently large to support a family, the syndicate will build cottages, and these are to be constructed of cement-sand bricks or cement blocks, as used in some of the cottages shown at the Letchworth exhibition in the summer of 1905. The dwellings will be of such a type that they can be let at a rental of about 4s. 6d. a week.

The syndicate will give facilities to persons who may desire to purchase allotments or holdings from them; but the majority of the applicants, it is expected, will

be quite content with tenancy. In the Evesham district sentimental aspirations for ownership have no great force among small holders, who find that their interests are well protected by what is known as 'the Evesham custom.' In effect, an outgoing tenant, giving up possession of his own free-will, arranges with the incoming tenant as to the amount of compensation the latter shall pay him for his improvements, and then introduces his proposed successor to the landlord, who is morally bound to accept him at the same rental, unless for some adequate reason. Under these normal conditions, the landlord is not concerned at all in the question of compensation. It is only when he himself gives notice to the tenant to quit, or refuses to accept the outgoing tenant's nominee, that a claim for compensation is made upon him.

How the system operates is shown by the following concrete case: A labourer at Evesham rented 3 acres of land, at 30s. an acre, and planted it with asparagus. He cultivated it for three years, spending at least £10 a year on artificial manures, but then decided to give it up. By that time, however, he estimated that his tenant-right was worth £160, cash down, and he found someone who was quite ready to take over the holding on those terms. This person he introduced to the landlord, the landlord accepted him at the same rental, and the new-comer was well satisfied with the arrangement, inasmuch as he expected to make on the first year's crop of asparagus—as planted by his predecessor—a sum fully equal to what he had given for the tenant-right.

The 'Evesham custom' has, in fact, greatly facilitated the expansion of small holdings in that district, where growers on a considerable scale are also quite content to rent substantial areas of land on an annual

tenancy, and spend thousands of pounds on planting them with fruit, feeling quite satisfied with the security which the local 'custom' gives them. In practice, growers, small and large, take as much interest in the cultivation of their land as if they were the actual owners. They have the advantages of ownership without the attendant drawbacks, and, in these circumstances, there is very little probability, whatever increase there may be in the facilities offered, that men of moderate means at Evesham will want to bury their working capital in the luxury of actual ownership. Still, if they do want to buy, the syndicate will afford them reasonable facilities for gratifying their aspiration.

Operating on the lines here detailed, 'private enterprise' should be able to purchase land, at the outset, not only cheaper than a local authority, but especially much cheaper than the small holders, acting individually, could do. The saving also in lawyers' fees and legal charges, as compared with what a group of 'peasant proprietors' would be called upon to pay, represents in itself a considerable item. Then the cottages will cost less when put up by the syndicate than if they were built either by a County Council or by the occupiers. The advantages, as compared with individual ownership, go, however, much further than this. Under a scheme such as that with which I am here dealing, the unit of administration is the community. Questions of drainage, ditches, roads, and fencing will be dealt with as a whole instead of by individual tenants. It may also be assumed that effective precautions will be taken against negligent cultivation to the detriment of neighbours' interests. One further guarantee the syndicate would offer. As men having practical acquaintance with the needs of

the district, and with a considerable number of applicants to choose from, its members would accept as tenants only such persons as were capable of becoming efficient cultivators. In this way, therefore, the control exercised by the syndicate would be more effective than the control of a large land-owner, of a land company operating in London or elsewhere, or of a County Council possessed mainly of a beneficent idea to plant the unemployed on the land. Taken altogether, the rule of such a syndicate would be the rule of a beneficent autocracy, and, in the circumstances, such a rule should tend to promote the general welfare of those concerned.

Another practical advantage which the colonists under the proposed scheme would obtain is in the matter of cartage. At present each small holder at Evesham makes his own arrangements for getting his produce to the local markets, or to the railway-station, and this generally means (1) that he is put to the cost of buying a horse, or a donkey, and vehicle; (2) that he incurs further expense on account of keep; and (3) that he loses time in having to take in the produce himself. It is estimated that for a small holder with 5 or 6 acres of land these items represent the equivalent of from £4 to £6 per acre added to his rent.

To avoid all this expense and waste of time, the syndicate would provide horses and vehicles for the combined conveyance of produce, according to a scale of moderate charges which would work out very much less for the tenants than if each member of the little colony acted independently of the others. The horses thus kept would also be available for hire for light work on the land when they were not otherwise engaged. In this way there would be no need for the tenants to buy and keep animals of their own, and the profits from their holdings would be increased proportionately.

From the basis of organization here represented, it would be but a short step for the little community to form themselves into co-operative societies with a view to obtaining all the advantages that combined action in regard to production, transport, and sale are calculated to secure. Altogether, therefore, and subject to certain matters of detail which have not been definitely settled as these lines are being written, the scheme of the Evesham syndicate is one that well deserves to be watched with a good deal of interest, as affording a possible solution of some of the greatest problems now met in the further increase of small holdings.

The natural objection to such procedure as this on the part of private enterprise is that where a scheme of the kind described is operated on commercial lines, the tenants run the risk of being unduly exploited in the interest of dividends or profits. To this the obvious reply is that the adoption of any such policy would inevitably lead to the collapse of the enterprise. If the rents were excessive or the restrictions unreasonable, the tenants would leave. But, in point of fact, the syndicate should be able to let allotments or small holdings at lower rents than either an individual landowner or a local authority could accept, and, under its system of management, it would still secure a reasonable return on its invested capital. Such a return, too, is certainly desirable, if only for the purpose of encouraging others to start elsewhere on similar lines, and save local authorities from any need or excuse for further adventures into the region of municipal landlordism.

CHAPTER XXIV

THE HUMAN ELEMENT

I AM perfectly aware of the fact, to which some of my readers may point, that such proposals as those I have advanced would not fully solve the problem of the 'unemployed' in the towns. They might, it will be said, help to check the rural exodus, and also provide outlets for the settlement of a certain number of townspeople in the country, but the larger number of those who are crying out for work in the towns would still remain there.

All this I frankly admit; but my immediate purpose was to discuss the problem from an agricultural or economic rather than from that social or philanthropic standpoint under which the absorption of the unemployed in general naturally falls. There are reasons why I feel bound to concur in the views of Dean Stubbs when he says in his book on 'The Land and the Labourers':

> Nearly twenty years' close intimacy with the conditions, social and economic, of rural life have taught me that success in agriculture, even on a small scale, demands qualities of head and hand and heart which, to say the least, it is quite idle to expect from a merely miscellaneous company of the loafers and slummers and labour failures of town life. It is too often forgotten by the glib land reformers of our city debating clubs that the efficient agricultural labourer is not in reality the dull chaw-bacon sort of person of a *Punch* cartoon, but one of the most highly-skilled of

English workmen. To expect, therefore, that the town labourer who has failed can be readily transformed into the rural labourer who will succeed is to expect miracles.

If these remarks are just as regards ordinary agricultural conditions, they apply still more forcibly to those various phases of the lesser agriculture with which small holders would especially deal.

In the first place, one must remember that the division of the *personnel* of British agriculture into 'landlord, farmer, and labourer' no longer has the same force as of old. The division to-day is becoming more and more a twofold rather than a threefold one: the land-owner and the small tenant-farmer, or cultivator, who either does all the necessary work himself, with the help of his family, or else obtains outside assistance on a limited scale or on rare occasions only.

Then the fact that Science now enters much more fully into the general work of agriculture than it did in the days when the largest number of labourers was engaged on the soil is especially true of the various industries in which small holders would have the best scope for their energies, so that not only the small holders themselves, but assistants and labourers, where they are wanted, must represent a type of men often superior alike to the average ploughman and to the average town labourer. Industries, in fact, such as dairying, horticulture, floriculture, stock-raising, etc., as distinguished from the growing of corn, are occupations requiring technical knowledge, skill, business capacity, and unremitting personal attention on the part of those engaged therein—qualities and qualifications not necessarily possessed by even the average farmer of the old school, and still less by the average agricultural labourer of the passing generation, however efficient the latter may have been in the days when the

work he had to do made less demands on his intelligence than upon his physical endurance. In the same way there may be still less prospect of successfully settling the 'unemployed' on the soil, there to work out their own salvation as small owners.

This point is so important, as a matter of public policy, and as one that is giving rise to hopes which may be doomed to disappointment, that it is desirable the position should be clearly understood.

In the matter of market-gardening, for instance, it may be said that anyone can dig; but the successful growth of a variety of vegetables, fruits and flowers under present-day conditions, and especially for sale on the market, needs a wide range of experience and practical knowledge (apart from the sustained physical exertion involved), and it might well happen that the 'labour failures of town life' would not be equal to the requirements of the situation.

Butter and cheese making, again, are industries in which training and technical knowledge count for much; while even if the dairy farmer should content himself with sending milk to the towns, he will secure the best results if he understands the scientific principles of milk production, and learns from their application which of his cows yield the most, breeding from them accordingly, in preference to the less remunerative animals.

As regards the growing of fruit, the Departmental Committee which recently reported on this subject said:

> The fruit industry, as at present conducted, is a comparatively modern one, and it may be said to be largely in the experimental stage in this country. It is not surprising, therefore, if the average grower is ignorant of many things essential to his success; but the ignorance alleged appears to go very far beyond this, and on certain material questions nobody in this country appears to be

able to speak with certainty. To give two remarkable instances: first, with regard to manures, doubts appear to exist as to the effect of manures on fruit-trees, especially on apple-trees. . . . The other example of the inadequacy of our present knowledge is concerned with an insect pest, known as the black-currant mite. The ravages of this mite in recent years have been most serious; indeed, unless some remedy is found, there is danger that black-currant growing may be extinguished in this country altogether. . . . Great ignorance appears to exist as to the proper treatment of trees. Far too few precautions are taken in many districts against the ravages of diseases and insect pests, and pruning is frequently either very badly done, or not done at all.

Judging from this statement, the average 'out-of-work' from London or Manchester would have but a poor chance of success as a small holder operating an orchard; while to start him straight off as a grower of fruit, flowers, and early vegetables under glass would be to court certain failure.

Stock-raising, though not dealt with in detail in the present volume, is an occupation that opens up wide possibilities to small men as well as great; and, by way of illustrating those possibilities, I might mention that in the autumn of 1905 a representative of the Hungarian Government bought up 250 pigs in this country for distribution throughout Hungary for breeding purposes, consigning them viâ London and the Thames to Ghent, whence they were taken by special train to Hungary. The 250 pigs, however, were merely an instalment, the total number actually required in Hungary to complete the scheme in hand being 4,000. But it is animals of choice breeds and perfect condition that the foreigner wants to buy from us for reproductive purposes, and, though small holders ought to have a good chance of sharing in a lucrative business, there is evidently a special call for intelligence on their part if they are to supply what is wanted. Even poultry production on lines that pay has developed into a science, while poultry-fatting for the market is an art that, simple as

it seems, calls for a certain degree of skill, a great amount of perseverance, and, also, a more or less substantial capital, if it is to bring in a living.

So the 'three acres and a cow' remedy (especially if the acres are to be owned) is, by itself, no remedy at all; and so, too, must the reader see that the ordinary 'unemployed' of our large towns, and the ne'er-do-wells of urban life in general, are not the type of men who could be settled on the land straight off as small holders, whatever else might be done with them.

All the same, I think there is a distinct and even a desirable opening in the industries in question for certain other types of individuals from the towns. Apart from the factory workers who have gained experience on allotments (as at Aylestone), there are men who, though intelligent, capable, and willing, are physically unfit for the stress and strain of life in great cities, especially when close confinement in an office or counting-house may be included therein. Others there are who, though considered 'too old' for the employment on which they have hitherto been engaged, still possess an amount of energy and vigour, the devotion of which to a healthy rural pursuit would not only provide them with a fresh and a more or less profitable employment, but would enable them, in effect, to 'renew their youth.' Others, again, the sons of manufacturers, business men, or professional men, might well start in the country in some occupation which either appealed to their tastes more, or would suit the condition of their health better, than following in the footsteps of their fathers. At Evesham there are several young men of this class who, having developed a tendency to consumption, took to the fruit industry in preference to entering the paternal mills, learnt the business, spent their days in the open air in the mild

climate of the Evesham Valley, got rid of their consumption without having to go into exile across the seas, established, in course of time, a fruit farm or a fruit business of their own, and are now 'doing well,' both physically and commercially. I may be going beyond my text, but I must confess that when I read in letters to *The Times* reiterated appeals for more and still more thousands of pounds for 'homes' for consumptives, I think of the fresh-air cure adopted by those young men at Evesham, and wonder whether it would not do more good if the money were spent instead in enabling consumptives to settle on the land while they may still be cured.

Individuals of the desirable town types I have mentioned might need, in the first instance, either to hire themselves out for a time to farmers, fruit-growers, market-gardeners, or others, in order to gain experience, or, alternatively, pay a premium for facilities offered; though here I am assuming that they would be persons of quite a different stamp from the 'remittance men,' not only of the Canadian Far West, but of Yorkshire and other English counties, who are supported by supplies from parents or relatives while presumably learning the business of farming, but are more often to be found in the drinking-bars (in Canada) or alongside a trout-stream (in England) than in the fields or gardens. Starting, however, with the assumption that the townsmen in question were alike intelligent, energetic, and determined to succeed, there ought to be no insuperable difficulty in the way of their acquiring, within a reasonable time, a sufficiency of knowledge of some one or other of the minor industries of agriculture to be able to make, at least, a living out of it, even if they could not eventually do much better.

As a matter of fact, some of the greatest successes

achieved in several of these minor industries of late years have been won by enterprising men from the towns who had had little or no previous experience of country life. Given the brains, the will, the energy, and the business aptitude, the necessary degree of technical knowledge has soon been picked up. With the qualifications mentioned, men who started in the first instance without technical knowledge have succeeded where others—natives of the soil and possessing technical knowledge only—have failed. One of the largest and most successful growers of fruit and vegetables under glass in this country devoted the earlier years of his life to the law. Another grower (in the same line) I have met was formerly in the tea trade.

A clerk in the Railway Clearing-house, finding his health affected by the close confinement of office life, went to Lincolnshire, started as a farmer, dealt in corn, cake, and seeds, and then took to bulb-growing, first as a hobby, and then as a serious business. He had had no expert knowledge of bulb production, but he persevered, learned by experience, and worked away until he became one of the principal growers in his district. He now has a farm of 87 acres, of which 20 acres are devoted to bulbs.

A Yorkshire factory operative had devoted his leisure to growing flowers, and he won several prizes at local shows. After a time he left the factory and took to floriculture altogether. That was fifteen years ago. Since then—as I found on visiting his place—he has developed into a producer on an especially large and successful scale. He lays claim to no scientific training, and told me he had gained his knowledge less from books than from close observation of Nature. He has also carried out an absolutely original system of cultivation, in which perfect efficiency is combined

with extremely low cost of production, while he has himself developed into a business man of exceptional shrewdness and force of character.

Many more such stories could be told, but I must now content myself with the following:

Thirty years ago, or thereabouts, there lived in Scotland a certain draper who, in addition to being a successful business man, had a strong attachment for flowers, and was secretary of a local horticultural society. For some years he was content to regard flowers in the light of a hobby, but his devotion thereto became at last so strong that he gave up his business in Scotland, and came to London to see if he could not earn a livelihood at the more congenial pursuit of flower production. He took over a nursery garden; but his business instincts had convinced him that it was necessary, not only to grow attractive flowers, but to market them in such a way that their natural beauty would be fully preserved and shown off to the best advantage. Discarding, therefore, the old-fashioned style of tying up the flowers into round bunches, or 'nosegays,' he adopted the then novel method of placing them flat in long boxes, after the fashion of 'sprays,' so that all the flowers were presented the same way, and there was no danger of any one of them being crushed by the others. On the top of the flowers thus arranged he fixed a small piece of cane, slightly longer than the breadth of the box, in order to prevent them from moving about during transit.

This improved method was the acme of simplicity, but the effect—especially in the packing of narcissi, to which the trader in question devoted particular attention—was that the boxes of flowers so arranged had an immediate success on Covent Garden Market. The innovation amounted, in fact, almost to a revolution in

the cut-flower business, and it has since been generally adopted.

Here, then, we have a clear example of how a man, without any previous special training, but possessing business aptitude and a real attachment towards the matter he takes up, may introduce new ideas, and bring about fresh developments that may have good results not only for himself, but for others besides. Not content with success in this one direction, the same enterprising pioneer subsequently undertook the growing of peaches and nectarines under glass; and though at first some of his friends were amused at his boldness, it was not long before they had to admit that his peaches and nectarines were among the best that came into the market, and that in regard to those fruits, at least, even the experts must look up to him with respect.

In all these various instances it was the brains and the business aptitude that told, and the more that these qualities can be introduced into rural industries, the better it will be for everyone concerned.

Whether or not, and, if so, by what means, such a result could be further secured under the operation of some practical scheme which would give suitable persons of modest means wider opportunities for obtaining small holdings is a matter that concerns the advancement, not alone of the individual, but of agriculture in general. While themselves seeking personal benefits, and having much to learn, the immigrants from the towns—always provided they were men of the right stamp—would take into the country a more practical knowledge of business life, a wider intelligence as to the altered conditions of trade and commerce, and a ready willingness to adapt themselves thereto. Free from the traditions which have flourished on the soil

for generations, they would have none of the prejudices that still hamper the old-fashioned farmer, and, though the latter's acquaintance with agriculture would at first surpass their own, they might hope to produce eventually as well as he; while in most cases they would probably resort to a better system of marketing. There would, again, be less risk of their becoming victims of the middleman or of the money-lender; they would respond more readily to the principle of combination, and they might, altogether, well succeed where others would fail.

The increased flow of such a leaven as this into the rural districts (to supplement the retention there of the younger generation of agriculturists, thanks to the increased facilities for land occupation) would be of the greatest value alike to the people and to the land. In this view I am confirmed by an authority well qualified to speak on this particular subject, who said to me:

It is difficult to deal with the men who are now on the land—that is to say, those who have spent on it the whole of their working days. Living in an isolated position, and clinging tenaciously to out-of-date ways and ideas, they are full of prejudices and suspicious of innovations. It is scarcely possible to bring home to their minds a complete consciousness of the economic changes that are proceeding in our own country, and of all that is being done in those other countries which aim at supplying our markets, and have already become such formidable competitors of the British producer. There is not much to hope for, I fear, from the present generation of agriculturists; but there should be a better chance with the rising generation, especially if we do not expect them to advance at too great a speed. It is the second generation that will respond more readily to new and organized methods, and, again, especially if we can introduce more and more into the country the intelligence of the towns. It is not the Tired Tims and Weary Willies who are wanted, but men whose advent would be a real acquisition. Intelligence from the towns, joining with the virile strength we look to from the land, should produce a transformation in men fully equivalent to, and able to cope with, the transformation already effected in economic conditions. If with this new factor there were combined an adequate supply of opportunities for its development, I should look forward to the future of British agri-

culture, not with despair, but with a feeling of assured trust and confidence.

Any such transformation in the men would require, however, to be supplemented by efficiency on the part of the women, for the wives and daughters of small holders may play an even more important rôle in the insuring of success than if they were the wives and daughters of large farmers. I would not for one moment suggest that they should toil in the fields and gardens as the women members of peasant proprietors' families in France and Germany do, performing arduous tasks entirely unsuited to them, and converting themselves into little more than beasts of burden. But, without going to such extremes as this, there is no doubt that the success or failure of many a small holding turns on the capability of the small holder's wife, not only as a household manager, but also as a helper in the lighter work and an assistant supervisor of the general operations.

CHAPTER XXV

AN OBJECT-LESSON FROM SERVIA

In my book on 'The Organization of Agriculture' I dealt so fully with the action being taken in the various countries of the world in seeking to improve their agricultural conditions that there is no need for me to enter in any detail in the present volume upon that phase of the general question. But early in 1905 there was published, in connection with the Liége Exhibition, a collection of official reports, issued by the Servian Minister of Agriculture, Commerce, and Industry, under the title of 'La Serbie à l'Exposition Universelle de 1905 à Liége,' and some of these reports have so direct a bearing on much that I have said in the foregoing pages that I venture to offer a brief outline of such of the facts given as concern the matters here under discussion.

Servia is essentially a land of small holdings. Farms of less than 12 acres in size represent, approximately, 54·56 per cent. of the whole; those of from 12 to 25 acres 27·55 per cent.; and those of from 25 to 50 acres 13·87 per cent. Even the very small properties are much split up, and measures have had to be taken to prevent the peasant proprietors from being entirely dispossessed by money-lenders or other creditors. Thus, a special law guarantees to each Servian peasant an area

of about 5 acres, which he cannot dispose or be deprived of for the payment of personal debts. It has likewise been made illegal for cultivators to give bills of exchange.

The number of those engaged in agricultural pursuits in Servia represents 84 per cent. of the entire population. The cereal most largely cultivated is maize, which forms the chief item of food for about three-fourths of the people, and is also largely used for the feeding of live-stock. After maize come wheat, barley, oats, rye, etc. Among leguminous plants the haricot is extensively grown, both for domestic consumption and for export. But fruit-growing is the industry that claims, perhaps, the greatest degree of attention in Servia, and here the influence and direction of the Government have been especially active.

Fruit is regarded in Servia as a distinct source of national wealth, and everything possible is done to foster its production. Plums, apples, pears, nuts, cherries, peaches, apricots, and medlars are all grown, but plums receive a degree of attention far in excess of that shown to the other varieties of fruit. They are exported fresh or in the form of prunes; they constitute the basis of a 'plum brandy,' and they are also extensively made up and sold as preserve. The value of the prunes exported from Servia in 1904 was £240,000, an increase of £40,000 as compared with 1903, though a substantial reduction on 1902, when the value was close on £360,000. Of plum preserve, the exports in 1904 were of the value of £120,000.

Here, then, is a business well deserving attention in a small country, and the Government have seen to the organization of it on systematic lines.

In the first place, they have their special officers at all the principal markets to examine the prunes on sale

and see that they are of a good quality and have been properly dried, the dealers not being allowed to send away any that are not considered satisfactory. But much more than this is done, for every arrondissement is required to have a model nursery of fruit-trees, occupying an area of at least 12 acres, where the particular trees best suited to the locality are grown, where practical courses of instruction on fruit-culture are given—each commune having the right to send to them two pupils, who are to be maintained, if necessary, at the public expense—and where also any cultivator can go at any time and obtain such advice as he may require, together with, at a very low charge, young trees of the particular kind most likely to grow and bear well in his own orchard. The surplus stock not sold to the peasants is planted along the highways, on waste lands, or on river-banks.

Of these public nurseries there have been established, since 1898, no fewer than fifty-one, ranging in size from the minimum of 12 acres to 57 acres. At most of them will be found, in addition to an orchard, a vineyard, a poultry farm, an apiary, and a silk-worm establishment, all on 'model' principles, together with a meteorological station. Lessons are, in addition, given in basket-making and other village industries.

Nominated by the State, but receiving their stipend from the department or the arrondissement, the official agricultural instructors are required, among other things, to give practical guidance to the peasantry concerning the cultivation of the soil, fruit-culture, vine-growing, stock-raising, poultry and bee farming, fisheries, etc.; to see that the agricultural processes are carried on under right conditions and at the proper times; to study the local agricultural situation, and advise the Minister of Agriculture thereon; to watch over, and

report upon, and render every possible assistance to, the various agricultural societies and institutions; and to see that the laws and regulations concerning agriculture are duly observed.

The State further takes an active and very practical interest in the raising of live-stock, pig-breeding ranking with maize-growing and fruit culture as one of the greatest of the national industries. The State keeps stud-farms of its own, and supplies the needs of the communes, each of which must possess a sufficient number of male animals to meet local requirements. The commune buys them from the State if necessary, recouping itself from the fees it charges for the animals thus acquired. The State gives prizes for the best animals exhibited at the agricultural shows, and it even grants subsidies to individual owners of breeding-stock.

The combined effect of the State encouragement thus afforded, and of the activity of various agricultural societies, is seen in the steady progress which the export of live-stock from Servia is making. Between 1900 and 1904 the number of live cattle exported increased from 62,385 to 64,207; that of sheep and goats from 55,683 to 74,928; and that of pigs from 77,000 to no fewer than 147,000.

Much attention is also being paid to poultry-keeping. The State has set up four special poultry farms (in addition to those at the public nurseries already mentioned); two breeds of imported foreign poultry (including Dorkings and Orpingtons among the fowls, and Aylesburys among the ducks) are propagated at each, as well as the native varieties; and systematic efforts—which are joined in alike by special organizations and even by certain banks—are being made to improve the primitive conditions under which almost every household throughout Servia keeps its own fowls,

ducks, geese, and turkeys. Considerable numbers of birds are being distributed throughout the country with a view to improving the breed, and the Government has given encouragement to the establishment of killing-centres for poultry. At one alone of these the weight of dead poultry despatched during the course of twelve months was 1,000 tons. The poultry business is to be further extended by a strong co-operative society which is to concern itself with the production of eggs and poultry, and the export thereof in large, regular, and satisfactory consignments to other countries —England included.

The progress already made in the export of poultry and eggs from Servia during the course of ten years is shown by the following table:

Year.	Live Poultry.	Dead Poultry.	Eggs.	Total Value.
	Number.	Tons.	Tons.	£
1894	74,607	158	97	11,200
1904	2,091,890	612	935	106,420

In connection with the dairy industry, the State grants a subsidy to a school of cheese-making set up at Smederevo in 1903 by M. Draskovitch, a lawyer by profession. It sends a certain number of young people to the school each year to go through the course of instructions; and it has also sent young people to study in the special cheese-making schools of Austria and Switzerland.

The advance of agriculture in Servia has not been entirely due to State aid, though the list here given of the directions in which such aid has been offered may appear sufficiently comprehensive. There has been a good deal of well-organized effort in other directions

as well. Especially important is the work done by the Servian Agricultural Society. Formed at Belgrade in 1869, this society not only became in itself a powerful factor in the agricultural situation, but it formed, in course of time, a network of no fewer than forty branches throughout the country. It also promoted both national and provincial exhibitions of live-stock, etc.; it set up a model farm of its own on 74 acres of land, where special attention was paid to fruit-culture and courses of practical instruction were given; it encouraged local societies to adopt a like policy in accord with local conditions; it carried on experiments with seeds and plants, or gave demonstrations of the use of machinery, in a considerable number of provincial districts, in order to afford further practical instruction to the cultivators; and it organized competitions for the best-managed farms, fields, orchards, gardens, vineyards, woods, etc.

But M. N. Lukitchevitch says: 'It is in acting as an intermediary for the purchase and distribution of seeds and agricultural implements and machinery that the society has contributed the most effectively to the progress of Servian agriculture.' Prior to the formation of the society it was, it seems, a rare thing to find in Servia a steel plough, and it was still more rare to find other modern implements and machines, or good qualities of cultivated plants, etc. The society began to introduce these things, and already in 1870 it was responsible for the first threshing-machine, operated by horse-power, seen in Servia. It subsequently followed with steam threshing-machines, etc., and though it was a work of time to get the people to appreciate the innovation, they hastened to make use of the new advantages offered to them when at last convinced of their utility. So much was this the case that the value

of the seeds purchased through the society rose from £36 in 1869 to over £1,000 in 1904; and that of agricultural machines and implements (exclusive of ploughs) from £45 in 1869 to £2,390 in 1904.

Agricultural co-operative societies, as told by M. Avramovitch in a report on 'La Co-opération Rurale,' were founded in Servia in 1894. Five years later there were already 100 in existence. To-day there are over 500, with about 250 local branches in addition.

First in importance are those co-operative credit societies which made the Servian peasant independent of the money-lenders, or tradesmen acting as such, who had previously preyed upon him so mercilessly. Based mainly on Raiffeisen principles, the societies have, generally speaking, no more capital than reserve funds, though most of them conduct savings banks where even the pence of school-children are received. The members of each society, however, make themselves jointly and severally responsible for all liabilities incurred, and on this guarantee loans are obtained from the Caisse Centrale of Agricultural Co-operative Societies, which was founded in 1899, and receives a certain amount of financial support from the State. Each local agricultural credit society operates in a particular village or locality, and only peasants who lead an exemplary life are eligible for membership. The purpose for which a loan is desired must be specified and approved in advance, and care is taken to see that the money is duly expended on that purpose and none other. The officers are unpaid, with the possible exception of the secretary, who may get a small allowance, and the cost of operation is small; while a great advantage is conferred on the peasant, who secures, at a low rate of interest, a loan which may be most helpful

to him in the purchase of live-stock, implements, seeds, or feeding-stuffs, or in defraying the cost of constructing or repairing his buildings, these being the purposes for which loans are mostly sought. In 1903 there were 359 of these local agricultural credit associations in Servia, and the returns made by 295 of them showed that the membership thereof numbered 14,139, and that 9,307 loans were granted during the year, representing a total of £31,632.

The purchases in 1903 of the various societies which group the orders of their members for seeds, fertilizers, feeding-stuffs, implements, etc., amounted to close on £22,000.

Then there were also in the same year 120 co-operative societies for the combined acquirement and joint use of costly agricultural machines. The members operate without capital, but they hold themselves once more 'jointly and severally' responsible for the liabilities incurred, and with no other guarantee than this the Caisse Centrale obtains the desired machine and sends it in to the society. It is then put at the disposal of the individual members, according to a fixed rate agreed upon among them, three-fourths of the sums thus received being forwarded to the Caisse Centrale to pay for the machine, while the remaining one-fourth is retained to cover the cost of repairs. In this way the poorest of the peasants gets the use of the most perfect of agricultural machinery in return for a small fee, which becomes almost nominal when eventually the cost of the machine has been fully repaid.

Of co-operative dairies there are only seven in Servia, all of recent formation. Included in the number is one for the sale of milk in Belgrade.

The various local societies have their district unions, and they further join with these and with the Caisse

Centrale in constituting the 'General Union of Servian Co-operative Agricultural Societies.' This general union watches over the welfare of the whole movement, appointing inspectors, holding conferences in various parts of the country—no fewer than forty-five different localities having been visited in this way—and publishing fortnightly a periodical, called *Rural Co-operation*, which, as a source of enlightenment and guidance, fulfils a most useful purpose. Each local society contributes 15 per cent. of its receipts to the funds of the General Union.

As regards the Caisse Centrale, I may add that each co-operative agricultural society and each district union is entitled to representation thereon, and it may be joined also by honorary and corresponding members of the General Union, though no one shareholder can hold more than 100 shares or have more than a single vote.

The objects of the Caisse Centrale are: To grant loans to co-operative agricultural societies; to provide them with agricultural machines, seeds, live-stock, raw materials for manufacture, etc.; to sell produce for members; and to receive savings of members or non-members, and pay interest on them. It advances by way of loans to the different local societies about £16,000 a year; it buys for them agricultural machines to the value of some £3,000 a year, and, under the system of grouped orders, it provides them with seeds, etc., to the value of £2,000 a year, a substantial saving being thus effected as compared with what the individual members, or even the individual societies, would pay if left to their own resources. A certain make of reaping-machine, for instance, which formerly cost £32, bought locally, is now obtained by the Caisse Centrale direct from Holland at a cost, delivered in Belgrade, of only £22.

Yet, after all, what Servia is doing by means of this systematic and comprehensive effort to expand and improve her agricultural industry is merely typical, more or less, of what is being done in Continental countries in general, and especially in those of them which have an eye to British markets as an outlet for their surplus supplies.

I would not for one moment suggest that it is either necessary or desirable, in an older, richer, and more advanced country like England, for State and local authorities to become to anything like the same extent the foster-parents of agriculture, and to attempt to do for the British farmer all that is done in countries of Eastern and South-Eastern Europe, where the general conditions are widely different. All the same, there are obvious lessons to be learned even from the by no means exceptional story here told respecting so comparatively insignificant a country as Servia, and such lessons may well be commended to the consideration of the British agriculturist and of those who are interested in his welfare.*

* The significance of the facts stated in this Chapter is increased by the following remarks which I find in the course of an article on 'The Situation in Servia,' by the Belgrade correspondent of *The Times*, published in that journal on February 9, 1906: 'The revulsion of sentiment in Servia has been quickened by considerations of a more material character, for it is hoped to shake off the economic thraldom of Austria *by securing a market for the native agricultural produce in England*, where alone it can enter free of duty.'

CHAPTER XXVI

POSSIBILITIES OF THE SITUATION

WHILE the readers of these pages may not agree with every view I have advanced, the facts given afford, in my humble opinion, ample justification for looking at the present position and future prospects of British agriculture—always using this word in its widest sense —from a more sanguine standpoint than that which is usually adopted. Great as the falling off has been in some directions, I have shown that compensating developments have taken place in others. Agriculture has suffered, and suffered severely, in the past; but the experiences of those engaged therein have often enough been paralleled in the industrial world. There are industrial centres such as (Birmingham and Coventry), which in the course of their history have seen once prosperous industries decay, and even die out, because of changes of fashion, new inventions, or foreign competition; but, though there has been a set-back for a time, relief has been found in a resort either to new methods or to new branches of production, with the result that the towns in question have re-established their position, and even, it may be, become more prosperous than before. Had the agricultural world shown a like power of initiative, a like fertility of resource, and a like recognition of the need for changes in production or of method to

suit altered conditions, the recovery would have been much more rapid.

All the same, that recovery is an actuality of the day. It may not be along the old lines, but it is a recovery, all the same, for those able and willing to take advantage of it. So far has it gone already, in fact, that there are fruit-growers, market-gardeners, and others who have much to say about 'over-production.' For my own part, I adhere to the view that there would be much less talk of over-production if the system of marketing were improved. Notwithstanding all that has been done during the last few years in the way of opening up direct supplies to retailers in the smaller towns—instead of leaving them to buy from wholesale men in the large centres—there is a great deal more that could be done in this direction. There are many other towns which, for one commodity or another, should be put on the same footing. There are towns with numerous populations which have not yet any market at all. There are important suburban districts of large cities to which, one would think, direct supplies could be sent, reducing the expenses of the retailer, and enabling him to sell cheaper, in which case a greater demand should follow. There are seaside resorts, on the Cornish coast and elsewhere, which still look to London for their eggs, and butter, and other produce, as though such supplies were not obtainable elsewhere, and especially in their own neighbourhood. There are scores of villages where, though people live in the 'country,' commodities of one kind or another are often difficult to get or prohibitive in price; and there are thousands of homes throughout the land where good wholesome fruit and vegetables still count as luxuries. Who can say there is over-production when conditions such as these obtain?

The glut that follows when too much of a certain

commodity is crowded on to certain markets is not necessarily 'over-production.' It may represent only imperfect and ill-regulated distribution, and an inadequate resort to practical measures for utilizing a surplus. If all the fruit grown in this country were sent to Covent Garden, there would certainly be a very substantial 'glut' upon that market, and loud complaints about 'over-production' would follow. But there are other markets, to which the fruit is sent; there are retailers who buy direct from the growers; there are jam-makers who buy up enormous quantities; and, as I have told already, there are the prospects of a substantial industry in canned and bottled fruits, not to mention the possible growing of our own apples in larger quantity, in place of the big imports from Canada or elsewhere.

Then an improved distribution should be followed by an increased consumption. The British public have yet to recognise fully the food value alike of fruit, of vegetables, and of milk. They still regard them (except in the case of potatoes and one or two of the vegetables) too much in the light of luxuries, instead of as regular and most desirable articles of diet. But the progress already made during the past few years is suggestive of a greater demand still to come; while here, again, there is the question whether businesses could not be worked up (as suggested in the case of English-grown asparagus) for the preserving of vegetables for winter use or for export. As for eggs and poultry of English production, the demand for these is inexhaustible, provided they can be put on the market at a reasonable price.

There is, in fact, no real reason for crying 'Halt!' in regard to the various phases of production dealt with in the present volume, however great the need for more markets and better marketing. The 'transition' may

thus certainly be allowed, and encouraged, to continue; and here I would say that any well-considered scheme for settling small holders on the land should certainly aim at enabling them to produce milk, poultry, eggs, fruit, flowers, vegetables, live-stock, and so on, according to circumstances, in preference to starting them on the growing of corn or other farming crops.

But one material factor in the situation is that there should be stepping-stones. For a new beginner to attempt too much at first will be to lead to almost certain failure. From this point of view, allotments should precede small holdings, and they should preferably be regarded for a time as merely supplementing the work done for some farmer in the neighbourhood. This would benefit alike the man and the farmer.

In the agricultural, as in the industrial, world, there are seasons or periods when constant employment cannot be found for a fixed number of workers; but the labourer who had an allotment would be able to fill up profitably these periods of leisure and provide better for his family, having at the same time a greater inducement to remain on the land. The surplus labour of the rural districts would thus be more readily absorbed and be rendered more available for the farmer at times when he needed all the assistance he could get. Beginning with the small allotment, the labourer, as time went on, would he able to undertake a larger one, and so on until he got a holding or a farm which would absorb the energies of himself and family. Scores of well-to-do cultivators have started in this way, and hundreds of others might succeed as well as they if they were enabled to make a good start.

The small holdings or the small farms would follow, and might well be taken up by the men who had already gained a certain amount of experience on the

allotments which must be regarded as an almost indispensable preliminary thereto in the vast majority of cases. The question of how the small holdings should be held is one that I have already discussed in detail; but one thing absolutely necessary to success in any scheme of land settlement, whatever the basis on which it is laid down, is that, if the producers grow for sale, and not simply for domestic consumption, they should form part of an organized body. They must avoid unnecessary cost in production; they must be able to take advantage of the lowest railway rates available; and they must get the best possible returns on the sale. All these advantages can be secured by means of organization only, especially if they represent a group of very small producers, any one of whom might have a small quantity of produce which it would not pay to send to market by itself. A group of 50 or 100, operating in common, would get advantages impossible of attainment so long as each acted independently, and the profits on agricultural produce are, as a rule, such as will not allow of prudent men neglecting any reasonable opportunity for increasing them. The individual cultivator in the country may be exceptionally skilled in the art of growing a crop; but, apart from the question of the quantity of stuff he produces, he may know little or nothing of the art of marketing, and be no match at all for the shrewd and clever dealers in the town, who know everything about that particular subject that is worth knowing. As a 'unit' he is in their power. As a member of an organized body, he has a better chance of marketing to advantage.

If, in addition to the ordinary agricultural societies for combined purchase and sale, co-operative credit banks could be more generally established, the prospects of good results being secured would be greatly in-

creased. Worked in conjunction with the societies, they would enable the allotment-holder or the small farmer to surmount the difficulty of having to pay cash down for what he wants, and, at the same time, to avoid getting into debt with the traders, or, what is still worse, into the clutches of the money-lender. On this question of co-operative credit banks, however, so much has been so ably written by Mr. Henry W. Wolff, chairman of the International Co-operative Alliance (which body has rendered great service to the movement for agricultural combination), that I have not felt it necessary to enter here in any detail on a subject that Mr. Wolff has made essentially his own.

Lest there may be any doubt as to the actual chances open to a group of small producers in a country district, I should like to place on record some very practical remarks made to me by a gentleman of great experience in the marketing of fruit, and I would venture to commend these remarks to the special attention of the land-owners of the country:

Looking at the very large quantities of fruit imported from abroad, and especially apples from Canada and the United States, I have often asked myself whether a much larger proportion could not be grown at home to the advantage of our own people, and there is no doubt whatever that it could. One thing that should be done is this: Large land-owners, instead of giving their cottagers 20 poles of land each, should let them have half an acre, one half, at least, of which should be put down to permanent fruit—apples and pears as top fruit, and soft fruit underneath. The landlord should arrange to supply the trees and plants, so as to insure uniformity of variety and quality over a given area, and he should also arrange for some horticultural teacher, not to give lectures in the village schoolroom in the winter, but to go into the gardens and give direct instruction to the cottagers and their families as to the proper cultivation of the trees and plants. He would, for instance, show them exactly how prunings should be done, putting the knife into their hands, and standing alongside until he saw that they understood exactly what he meant. One hour's practical instruction of that kind would be worth all the schoolroom lectures that he could possibly deliver. This would complete the first stage. The cottagers would have the land, they would have the proper

trees, and they would know how to grow fruit, which they might accordingly expect to have in due season.

But then would come the question how they should dispose of it to advantage. For this next step it would be essential for them to have a system of collection and of combined sale. Assume that a land-owner had divided 20 acres of ground among forty cottagers, then the fruit grown by them should be grouped into one lot and sent to market in the name of one sender, or of a small co-operative society, the proceeds being distributed among the cottagers according to the amount of fruit they had contributed to the consignment. The fruit would have to be properly graded and packed—for those are essential conditions—but inasmuch as it would all be of the same variety, the cottager who had only a few pounds ready on a certain day could send those in to the collecting centre, and be paid for them accordingly, just as one of his neighbours might be able to give in a substantially larger quantity. In this way they should be able to make up, say, consignments of 20 bushels of apples, all of the same class, from week to week, and find a ready market for them, while the forty cottagers, acting independently, would be put to more trouble in disposing each of his own particular lot than the business was worth. Still worse would the position be if each cottager, more or less, grew a different kind of apple.

Under the scheme I suggest the cottagers would want some kind of a shed in which to receive and pack the fruit, and such shed, I think, the land-owner might provide. With a little co-operative society to help they could easily divide between them the work of attending at the shed, and so on, and I think the members of their family, and especially their children, should assist in the packing. The young people would soon be interested in the packing of the fruit, and in the case of apples and pears the work could be done in leisure moments during the week, as there would be no need for immediate despatch. Gooseberries and currants would, of course, require to be sent off the same day, but this could easily be arranged. It might be necessary for one of the forty to beg a day off from his ordinary work, but the thirty-nine others could follow their ordinary employment, though still securing their share from the sales.

There are various advantages that would follow from the carrying out of this system. Not only would it increase the supply of English, as distinguished from imported, fruit, and not only would business be developed under conditions deserving the attention of wholesale traders, but the cottagers in the country would get increased earnings, would be more satisfied with their lot, and would take greater interest in country life. I can well imagine, too, that when the boys left school, went into the gardens, and watched there the horticultural instructor giving his very practical lessons, they would regard fruit-growing as a much more attractive business than the production of ordinary crops, and might eventually be led to say: 'Father, I think that if only I had a quarter or half an

acre of my own I would rather stop in the country and grow fruit than go into the town and look for work there.'

In the end a greater inducement would be offered to the people who are now on the land to remain there, while small beginnings, such as those here suggested, might lead to much more substantial results in individual cases. A man who starts with half an acre may put up a greenhouse, then get another half-acre, and so go on, step by step, until he gets together a good-sized business. I have seen innumerable instances of that sort of thing, and the greater the facilities that are offered, the better it will be both for the people and for the country.

One gains here a good idea of what land-owners could do to provide the initial stages of that increased land settlement which is assuming the proportions of a national want; but I still think it would often be necessary to provide intermediary bodies who would be able to develop schemes of small holdings—including therein suitable cottages—on a scale which few private land-owners would be either able or willing to undertake. There is very little doubt that, if these intermediary bodies—whether co-operative or commercial—could be established on solid and essentially practical lines, no great difficulty, as a rule, would be found in their being able to obtain land, either by purchase or lease; though it would be essential to the success of their scheme that they should have not only the right soil and the right conditions in general, but also the right sort of men as their tenants.

From this latter point of view it would, I maintain, be far better to deal with men who are already in the country, with a view to keeping them there, than to make costly experiments with the 'unemployed' from the towns. I am aware that schemes concerning the settlement of the latter on the land generally make the promise that only those who have actually come from the country would be sent back there. It is doubtful, however, if the man born in the country who has lived some years in, say, the East End of London, is not, as

a rule, spoiled for returning to rural pursuits. Where experiments of this kind have been tried by certain sympathetic growers I have met, they have invariably been failures. In one instance a grower paid the fare to Lincolnshire for a 'countryman' from London, agreed to give him £1 a week wages, and advanced him money for his first week's keep. But the man from London found that the baskets which the women employed in the same field lifted without difficulty were too heavy for him. He was seen to be a failure, but was given his chance. At the end of a fortnight he announced that he was going back to London. Asked his reason, he replied that 'it was too dull in the country. There wasn't even a place where he could get a shave.'

But, although the man who has spent his life, or even any number of years, in a large city, might be unfitted for rural industries (and especially those of a kind requiring skill, knowledge, and capacity of no mean order), it is important to bear in mind that, by keeping the countryman in the country, the urban worker would be relieved of a competition he finds it especially difficult to meet when he is a candidate for work where physical vigour and a sturdy appearance are a recommendation. A substantial development of rural industries, again, would give more work to bottle-makers, box-makers, can-makers, printers, and others, who would follow their ordinary occupation much more readily than they could undertake the growing of agricultural or horticultural commodities. It is in these directions, leading to the improvement of the general trade of the country, that the average urban worker would be benefited, rather than by any scheme which aimed at putting him to occupations he knows nothing about, and of which he would, probably, except

in a comparatively few instances, very soon grow weary.

My own proposals, therefore, go little further than granting to men who are already on the land increased facilities for settling there, and devoting themselves especially to those subsidiary branches of agriculture which have already undergone such substantial development, but for which, under an effective system of combination, coupled with improved marketing conditions, there ought to be still further opportunities. A certain proportion of townsmen might be absorbed, but any wholesale migration would, I fear, prove impracticable.

Within this more limited scope there is clearly room for action in regard to the establishment of a larger number of persons on the land, whether on the particular lines I have recommended or otherwise. But any action so taken should be regarded as forming part only of a National Agricultural Policy, directed to putting the agricultural industry of the British Isles on an improved basis. When the other countries of the world are doing so much for the advancement of their own agricultural interests—and very largely with aspirations towards our own markets—it behoves us to be on our guard to do all that we can for the improvement of our own position. That this position is already stronger than is generally assumed has, I trust, been established by the facts I have here presented; and though I am not favourable to undue dependence on State-aid where the principle of self-help will suffice, there are directions in which practical assistance might, and ought to be, given by the State.

Personally, I should not be disposed to support the idea that the State should provide large sums of public money for the creation of a large body of peasant

proprietors. But there is clear scope for such an improvement and simplification of the land-laws as would remove some of the stumbling-blocks from the path of those who would seek to establish more people on the soil by means of private or co-operative effort on the lines I have already detailed. I think, also, that the State should relieve agriculturists of some of those permanent financial burdens of which Mr. Alec Steel speaks so forcibly, and that the local authorities should be reduced to reason in respect to their abnormally heavy taxation, especially as applied to those glass-houses which represent one of the British grower's best means of fighting foreign competition. I am strongly convinced, too, that the Government should, at least, do all that is possible to foster those various subsidiary industries which represent the present-day hope of the British agriculturist; that they should carry out a scheme for the promotion of agricultural education on essentially practical lines; that experimental farms, especially in connection with fruit-culture, should be set up in every district where they are likely to be of direct service; that assistance should be given in the setting up of agricultural credit banks; and that a more generous measure of financial support should be extended to the Board of Agriculture and Fisheries with a view to enabling it to increase its powers of usefulness to the agricultural community. These are directions in which the Government alone can act, and, considering the magnitude of the interests concerned, it is not creditable to the country that Ministers can do so little, and that Parliaments, busy with questions of party politics, can do still less, for the advancement of the greatest of our national industries.

There is the less reason why the Government, or why Parliament, should hesitate to take action along these

or other lines akin thereto, because one cannot doubt that public opinion would strongly support the adoption of such a step. The discussions which have arisen in so many different quarters on the subject of land settlement; the various schemes advanced from time to time; the deputations that have gone abroad to study foreign conditions; the spirit of inquiry that has been awakened throughout the land; the publication of so many and such excellent periodicals which deal with every possible phase of agricultural or country life, and penetrate to the dwelling of practically every farmer or cultivator; the springing up of a new generation of men prepared to adopt new ideas, to work on scientific principles, and to accept the advantages that combined effort opens out to them; the actual developments that have already taken place in the fruit and other industries—all these things show that the time is fully ripe for a revival of confidence in rural pursuits, and that any Government which took the subject in hand, and dealt with it on efficient lines, would have the hearty support of the British people.

There is certainly scope for the assistance also of local authorities in the carrying out of a National Agricultural Policy such as that here suggested. The item in respect to which they could afford the greatest help is the matter of local rates; and by this I mean, not simply the shifting of burdens from one class of the community to another—not simply a reduction in the assessment on glass-houses, and a corresponding increase in the assessment on something else—but an actual reduction in the local expenditure, allowing of a financial improvement all round. Especially could that reduction be effected in regard to the policy of carrying out in rural centres what are, in effect, urban improvements, often involving both an outlay that is

beyond the reasonable means of a country district, and an undue increase in the cost of producing the commodities on which such district seeks to thrive. Handicapped in this way, it is scarcely possible for agriculture to flourish.

In the next place, rural authorities must seriously consider the important question of building by-laws, with a view to facilitating the more economical construction of labourers' cottages, while still securing adequate regard for considerations of health and sanitation. The whole subject of rural education also calls for revision, and action might more especially be taken by County Councils (where this has not already been done) on some such lines as those followed in the case of Essex, as described in Chapter III. It may be open to doubt whether County Councils are well-advised in spending public money in teaching the art of butter-making to dairymaids operating at individual farms, since the lesson taught in the most emphatic manner by our colonial and foreign competitors is that the large quantities of butter which the British market requires can only be successfully made by the adoption of the factory system. But there can be no doubt as to the value of analyses, of field experiments, of scientific research, of the work of travelling professors and demonstrators in fruit and farming districts, and of agricultural instruction in general, all of which matters come well within the scope of our County Councils.

Action along these lines would be both legitimate and desirable; but I could not advocate that County Councils should emulate the example of the local authorities who have resorted to municipal house-building in the towns (at the cost of the ratepayers) by themselves speculating in land in the country, with the idea of creating colonies of small holders. Still less

would I give County Councils (as proposed in some quarters) power compulsorily to acquire land for such purposes. Not only would a policy of this kind open the door to grave abuses (since the authority, armed with compulsory powers, would naturally want the best slices out of an estate, rejecting portions less desirable), but the whole difficulty at present found in the way of acquiring land for small holders could, in most cases, be much better met on the lines set forth in the preceding pages. There would be less objection to a local authority renting land to let out as 'allotments,' but even here the example of what has been done at Aylestone and elsewhere suggests that the intervention of a local authority is not indispensable.

Although, however, as a matter of principle, I should be opposed to the granting of compulsory powers of purchase, those of the land-owners who still cherish a spirit of hostility towards the small holdings movement, and refuse to make any concession whatever in otherwise desirable districts, where they have, and seek to maintain, a monopoly of the soil, may find before long that the growing force of public opinion will exercise such pressure on the Legislature that the enactment of compulsory powers of purchase may prove to be unavoidable. Much will depend on the attitude of the land-owners themselves. If they recognise adequately the trend of events and submit in time, and with good grace, to what is clearly the inevitable, they may check the movement now proceeding in favour of compulsion; and certain it is that they never had greater opportunities than those that are now being opened out to them. In most cases, as I have said, no great difficulty should be experienced. As regards the remainder, if an attitude of unreasonable hostility towards the small holder be persisted in, even by a minority, to the

prejudice of national interests, a most powerful argument will be placed in the hands of those who favour direct State interference.

As for the opportunities open to the British producer, they could not be stated in a more concrete form than in the following table of 'Values of Annual Imports into the United Kingdom of Certain Articles of Agricultural Production,' which I take from *The Times* of January 8, 1906:

Imports.	1903.	1904.	1905.
	£	£	£
Cattle, for food ...	9,209,122	9,736,436	9,665,806
Sheep, for food ...	546,063	591,984	278,753
Beef, fresh ...	8,366,141	8,058,341	8,911,593
Mutton, fresh ...	7,826,062	6,861,531	7,336,480
Bacon	13,619,140	12,832,142	12,774,855
Hams	3,142,574	3,104,999	3,118,372
All dead meat ...	39,439,940	37,120,618	38,467,503
Poultry and game	1,202,288	1,217,277	999,480
Eggs	6,617,599	6,730,574	6,812,476
Cheese	7,054,710	5,843,770	6,339,742
Butter	20,798,707	21,117,162	21,585,622
Margarine ...	2,313,618	2,494,467	2,736,286
Lard	3,870,774	3,342,389	3,692,573
Wheat	29,940,191	34,266,416	35,279,928
Wheat-flour ...	9,723,652	7,258,600	6,044,745
Maize	12,465,583	10,247,134	11,034,748
Barley	7,221,789	7,161,600	6,017,350
Oats	4,263,950	3,726,120	4,713,265
Beans	594,832	577,094	414,227
Peas	690,768	767,097	724,757
Hops	578,739	1,839,854	456,280
Onions	1,003,016	1,076,472	1,094,693
Potatoes	2,603,238	2,437,971	1,404,607
Tomatoes ...	953,192	1,007,274	970,579
Apples, raw ...	2,781,643	2,118,294	2,065,193
Pears, raw ...	326,463	503,573	407,679
Plums, raw ...	622,268	526,438	524,673
Flowers, fresh ...	248,689	242,454	202,217
Seeds, clover, and grass	1,008,772	869,838	651,712
Wool, sheep, and lambs	20,622,523	20,366,030	23,821,359

It will be seen from this list that, with the exception of the last three, all the items given relate to food-supplies, and that, with the sole exception of maize, all these food-supplies are of a kind capable of being produced at home. Even omitting wheat, there still remains a large assortment of other commodities, of which we are, apparently, content to receive big consignments from abroad, instead of producing sufficiently on our own account; and though in our circumscribed limits we might not be able to become absolutely self-supporting in regard to all these things, we could certainly produce them for ourselves in greatly increased quantity. Some allowance must be made in this list for 'early varieties,' imported before our home-grown supplies are ready; but even here the facts already stated show that our drawbacks in regard to climate can be readily overcome by a still greater resort to glass-houses, provided that these are not overburdened by local taxation.

Whether or not, and, if so, to what extent, the home producer should be aided in meeting all this foreign competition by a resort to a protective policy, is a much-disputed question upon which I have not sought here to enter. But, while leaving my readers to their own views on this most controversial of points, I would make one assertion, at least, without fear of contradiction: that, whether a policy of protective tariffs be adopted or not, British producers could in many cases, as the combined result of improved methods of culture and of effective combination for the purposes of cheaper production, cheaper transport, and better marketing, secure such economies, or get such increased prices, as would represent benefits equal, probably, to any that might result from such tariffs as even the most protective of British Governments would be

likely to impose. One could, I think, go even further, and say that, if Protection were adopted in this country *without* effective agricultural combination, the foreigner would, in most instances, though not in all, still be able to compete in British markets successfully with home growers, because of his cheaper production and better conditions of marketing, etc., due mainly to the thoroughness of his organization.

Finally, I would submit, there are certain moral obligations resting on the British public.

One market-gardener I have met was convinced there would be no great improvement until we began to appreciate more the value of good wholesome vegetables—and especially those of the lesser-known kind, such as sea-kale—and increased the consumption thereof. A dairy farmers' secretary lamented to me that people still had much to learn as to the food-value of milk, and various fruit-producers I know are looking forward to the time when, whatever the average housewife may do in respect to vegetables and milk, she will, at least, not overlook the virtues of fruit as a regular article of diet, and thus send up the demand for available supplies. I do not mean 'moral obligations' of this kind, but the need of appreciating (1) what may be done with English land, and (2) the desirability of encouraging practical schemes for settling thereon a larger number of suitable persons to engage in the particular industries still open to them, and offering wide scope for their energies.

Those of us who are neither land-owners nor capitalists may still exercise a useful influence in first realizing the actual facts of the situation, and then helping to create a healthy public opinion which would alike restore confidence in British agriculture; encourage both Imperial and local authorities to advance

its welfare along such lines as may be really practicable, apart from aims political or socialistic; convince farmers and producers of the value of improved methods and effective organization; and help to establish on British soil a larger number of capable, willing, and most desirable of workers, instead of leaving them to crowd into already overcrowded towns, or else to adopt a policy of despair in quitting their native country and seeking fresh homes in the lands beyond the seas.

APPENDIX

AYLESTONE CO-OPERATIVE ALLOTMENTS SOCIETY, LIMITED

THE text of the agreement signed by members of this society on taking over the allotments held by them is as follows:

CONDITIONS UNDER WHICH TENANTS HOLD THEIR ALLOTMENTS.

1. Tenancies to commence and terminate March 25 and September 29. Six months' notice to be given by the Committee or Tenant, except in special cases defined in rules 12-15.

2. That 3d. per 100 yards entrance fee be paid. Rent due in advance, and payable half-yearly, and the Committee to have full power to refuse any application they do not approve. Any Tenant being twenty-eight days in arrear from rent-day without giving a satisfactory reason to the Committee will be fined 6d.

3. That no Tenant be allowed to relet or sublet the whole or any portion of his allotment without the sanction of the Committee.

4. All sales and transfers to be approved by the Committee, the incoming Tenant to pay a fee at the rate of 3d. per 100 yards to the Society. Valuations to go through the Society's accounts in case of non-agreement.

5. Main roads and outside fences to be maintained by the Committee. For this purpose 4 feet to be retained. No divisional fence to be planted or erected without the Committee's approval.

6. No Tenant shall be allowed to plant trees within *eighteen inches of the next garden.*

7. Tenants committing a nuisance, or throwing rubbish on the main road or at the side of the fence, or injuring a neighbour's allotment, will be fined 1s.

8. The Committee will hold the Tenants responsible for depredations or mischief caused by friends who accompany them, and also retain the right to refuse admission to any person not being a Tenant. For leaving gates open a fine of 1s. will be imposed.

9. Dogs will not be allowed on the estate except in slips. For neglecting this precaution a fine of 1s. will be incurred.

10. Any Tenant cultivating his land on Sunday will be fined 2s. 6d.

11. For non-cultivation a fine of 2s. 6d. will be imposed.

12. In case of theft or wilful injury the Committee have power to expel any Tenant and dispose of his cropping, and pay over residue of same, after deducting all expenses and liabilities incurred.

13. No live stock to be kept on the estate.

14. All cases of dispute between Tenants to be referred to the Committee, whose decision shall be final.

15. The Committee shall have power to expel (at three months' notice, without compensation) any Tenant who sets their management at nought by persistently breaking the rules.

I hereby apply to the above-named Society for the tenancy of —— yards of land, at the annual rental of 2s. 8d. per 100 yards, or such other smaller portion as the Committee may allot to me, and do pledge myself to cultivate the same in accordance with, and otherwise be bound by, the above-named rules governing the Society's Tenants.

Signed,

Sixpenny Stamp.

ALLOTMENTS AND SMALL HOLDINGS CLUBS

The following are the rules in force in the Provident Allotments and Small Holdings Clubs, which have been established in South Lincolnshire and Norfolk:

OBJECT.

That persons desirous of obtaining land for Allotments and Small Holdings may assist each other by combination and organization—

1. By treating collectively with local authorities.
2. By hiring land of private owners.
3. By holding a reserve fund, if necessary, as security for rent.
4. By holding funds to meet tenant-right, or to provide seed and manures.

CONSTITUTION.

The officers shall consist of a Treasurer, Secretary, and Executive Committee of not less than seven members. The Treasurer shall be elected triennially, the Secretary and the Committee annually.

Treasurer.—The Treasurer shall receive monthly payments from the Secretary, and place the same in the bank when the amount in his hands reaches £5.

Secretary.—The Secretary shall collect the subscriptions, conduct the correspondence, and act generally under the orders of the Committee at a fixed salary.

The Committee.—The Executive Committee shall be members of the Club, who shall control and direct the general business, always provided (1) That before taking land directly or indirectly they shall consult a general meeting of the members

(the notice of which meeting shall explicitly state the business), and shall receive the sanction of two-thirds of the members present and voting; (2) That any resolution carried by two-thirds of the members present and voting at a general meeting shall be considered an instruction to the Executive Committee.

RULES.

1. The Club shall consist of an unlimited number of members, and any person may become a member, if satisfactory to the Committee, on paying an entrance fee of 3d.

2. Each member's subscription shall *not be less* than 2d. per week to the Capital Fund, and 1d. every fourth week to the Working Expenses Fund.

3. The Capital Fund shall not under any circumstances be touched for working expenses, nor for any other purposes except those stated in these rules.

4. The Working Expenses Fund shall be kept entirely separate from the Capital Fund, and shall be vested in the hands of the Treasurer. It shall consist of all payments other than payments to the Capital Fund.

5. Any member allowing his arrears on 2d. a week to exceed eight weeks' subscriptions shall be fined a halfpenny per week from the first week until the arrears and fines be paid up; and if six months in arrears, after having received due notice of the same from the Secretary, and after failing to give a satisfactory reason to the Committee for falling back in his payment, he may be excluded and forfeit all the moneys he has paid into the Club.

6. Any member may, on removal for more than three miles from the Lodge Room, cease his membership and draw out the whole of his payments to the Capital Fund, less a reduction of 5 per cent., such a deduction going to the Working Expenses Fund.

7. In case of the death of a member the whole of his payments to the Capital Fund standing to his credit at the time of his decease shall be paid over to his widow or next of kin. The widow or next of kin may, if she or he desire, take over the membership of the deceased.

8. In the event of the direct hiring of land by the Club the

Treasurer shall be empowered (if so required by the land-owner) to retain a sufficient sum to cover one half-year's rent, and to give such guarantees to the land-owner as he may require. Each member taking such land shall transfer from the amount of the Capital Fund at his credit a proportionate share to such guarantee fund.

9. In case of payment for tenant-right, seed, or manure, each member shall be permitted to draw from the Club up to the amount of the Capital Fund at his credit.

10. In case of a member not having paid into the Capital Fund a sufficient sum to enable him to meet the tenant-right, or to find seed or manure, the Committee may, if the funds will permit, advance any sum from the Working Expenses Fund to such member on condition that 5 per cent. interest per annum is paid on the loan, and provided such member shall repay the loan when his capital account will permit.

11. In case of land obtained directly by the Committee, members who have paid into the Capital Fund a sum sufficient to cover the first half-year's rent shall have a prior claim. In the event of the number of applicants for land exceeding the number of allotments, lots shall be cast in the usual way.

12. The Executive Committee shall have power to draw up and submit by-laws for the management of allotments to a general meeting of members from time to time as they may deem necessary.

13. A general meeting of members may be called at any time by the Committee, or by a requisition in writing to the Secretary signed by any seven members.

14. No rule shall be altered except at a general meeting of members, and after due notice of such proposed alteration has been given to each member.

By-Rules.

That all subscriptions to Capital Account and Working Expenses be payable at the Club Rooms from 8 p.m. to 9 p.m. the first Friday evening in each and every calendar month.

That any person or persons wishing to become members of this Club during the year should pay his share of the working expenses for the whole year, or from the commencement of the Club's year.

That a fine of 6d. should be paid by any member of this Club

who shall swear or smoke in the Club Room during club hours, such fines to be devoted to Working Expenses Account.

That no member of this Club, or anyone becoming a member, shall be entitled to ballot for any allotment until he is twenty years of age.

That two members of the Club be appointed annually to audit the Club's books and other documents.

That no interest should be allowed those who withdraw from the Club their last year's payments into Capital Account.

That in the case of land being obtainable by the Committee or otherwise, those already having allotments and being members of this Club shall not ballot for any allotment until each member shall have received an allotment, or become tenant of an allotment.

That all persons holding allotments in connection with this Club shall remain members of the Club, and fulfil all the obligations of membership.

SOUTH LINCOLNSHIRE SMALL HOLDINGS ASSOCIATION

I give below the form of agreement entered into between the South Lincolnshire Small Holdings Association and each one of its tenants. Certain of the requirements and stipulations may appear somewhat arbitrary, but the reason given is that, 'in these agricultural agreements every contingency has to be provided for.'

Memorandum of Agreement made between the Syndicate (hereinafter called the Landlords) of the one part, and of (hereinafter called the Tenant) of the other part, whereby the said Landlords agree to let and the said Tenant agrees to hire as a yearly Tenant from the day of 190 the holding numbered in the Field of Allotments or Small Holdings on the land known as situate in the parish of and containing a. r. p., or thereabouts, at the yearly Rental of £ and at a proportionate

Rent for any period of less than a year over which the Tenancy may extend, subject to the following conditions—that is to say:

1. The Tenant shall have and keep on deposit in the Spalding Agricultural Credit Society not less than the sum named in the rule adopted at a special meeting of the Provident Allotments and Small Holdings Club held on July 18, 1901. The amount thus placed on deposit shall be refunded to the Tenant, with any interest due, on the determination of his Tenancy.

2. The rent shall be paid half-yearly, on the 6th day of April and the 11th day of October in each year.

3. The Tenant agrees to pay all rates, taxes, and other assessments and outgoings, except Landlord's Property Tax.

4. The Tenant shall not underlet, assign, or part with the possession of his Small Holding or any part of it, and shall reside in the neighbourhood. In the event of the Tenant leaving the neighbourhood, he shall, previous to leaving, give notice in writing to the Landlords, and the Tenancy of his Allotment or Small Holding shall cease on the 11th day of October next following the receipt of such notice, or, if he fail to give such notice, immediately on his quitting the neighbourhood.

5. The Tenant agrees to cultivate and manage the land in a good and husbandmanlike manner. On the determination of the Tenancy the amount of the Tenant-right due to the Tenant, if not otherwise agreed upon, shall be fixed by valuation in the usual way.

6. The Tenant of any grass land shall maintain a sufficient fence to keep his stock on his own land; the horses grazing on the land shall be strictly limited to those owned by the Tenant or by a Tenant of the Landlords, and shall not exceed in number one horse for each 2 acres of land. The Tenant shall not mow and remove grass or hay from the same land two years in succession.

7. The Tenant shall not erect on his holding any shed, hovel, pigsty, tool-house, or shelter without the permission in writing of the Landlords or their Agent.

8. The Tenant shall not plant any trees or shrubs so as to be injurious to any adjacent Small Holding.

9. The Tenant shall not throw or leave any manure, soil, stones, weeds, or rubbish, or otherwise obstruct any path, road, ditch, stream, well, or pond belonging to the Landlords.

10. The Tenant shall not encroach, trespass, or commit any

depredation or damage on any other of the Small Holdings, or on any land of the Landlords', and agrees so to manage and use his Small Holding, and so to behave himself while on his Small Holding, as not to cause any nuisance or annoyance to the other Tenants or to the Landlords, and to assist and give evidence in order to discover and convict persons who so offend.

11. Unless a special agreement with regard to the ditches and watercourses is made with the Tenant, the Landlords shall annually rode out, and, when necessary, clean out and scour, the ditches and watercourses, and the Tenant shall pay his quota towards the cost; according to the acreage occupied by him. The Tenant shall not cut down any hedge or lop any tree on his occupation without the consent of the Landlords.

12. The Tenant shall maintain and keep in repair the fencing and gates adjoining his occupation. In default it is agreed that the Landlords execute the work, and the full cost of the same shall be a charge upon the Tenant.

13. Any Member of the Syndicate or the Steward shall be entitled at any time to enter and inspect the Small Holding.

14. Every notice, request, or consent signed by or given to the Steward or Agent for the time being of the Landlords shall be deemed to have been signed by or given to the Landlords; and any notice signed by the Steward or Agent of the Landlords, and given to the Tenant, shall be to all intents and purposes sufficient notice to the Tenant.

15. The Tenancy shall be determined by six months' notice on either side, such notice to expire on the 11th day of October in any year; but if at any time the rent shall be in arrear twenty-one days after the time fixed for payment, or if the Tenant at any time not less than three months after the commencement of his Tenancy has not duly observed and kept the terms of this Agreement, the Landlords shall be at liberty to retake immediate possession of the Small Holding without paying any compensation whatever.

As Witness our hands this day of 190

.....

Steward for the *Syndicate.*

..... *Tenant.*

Witness .....

REGISTERED *v.* NON-REGISTERED SOCIETIES

The difference between registered and non-registered societies is very clearly brought out in a leaflet (No. 28) issued in December, 1905, by the Agricultural Organization Society, to the following effect:

Advantages of Registration.

There is a large number of Agricultural Societies formed for specific purposes throughout the country, which, through not being incorporated (registered), do not exist in law. Some of these societies engage in trading operations, and the responsibility for these trading operations may fall entirely on the secretary or other individual found to be taking an active part in the business, which may lead to serious loss to him personally, besides the unpleasantness, in case of any difficulty, of having to collect a loss by a levy from the members.

An unregistered society is incapable of entering into contracts, and therefore cannot, as a body, sue or be sued. It, therefore, is possessed of no credit in the ordinary sense of the term.

The business of a voluntary society is usually carried on by the secretary, and he, being purchaser of the goods as well as vendor, has consequently to incur a responsibility to which no secretary or official should be subjected. He may find himself saddled with deteriorated goods, or he may make some involuntary mistake for which his society may decline to be responsible, and which may leave him with a heavy loss.

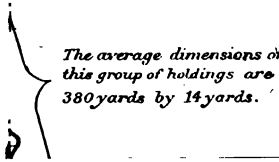
A creditor may take action against him personally, leaving him to get what contribution he can from the individual members of the committee, or the creditor may take proceedings against any member of the association upon whose instructions he finds the secretary or manager acted. Everyone who takes part in the management of the business of an unregistered society is constantly incurring personal liabilities, and, even however much he may trust to the good faith of his fellow-members, many incidents

might arise or disputes occur which would oblige him to pay out of his own pocket.

An unregistered society has no effective control over the action of its employés, and in the case, for example, where a servant of a registered or corporate body rendered himself liable to action for damages on the part of his employers, it might easily happen that no action could be taken by anyone on behalf of an unregistered society. The action would have to be taken individually by the secretary or official who hired the employé, and legal difficulties would probably arise. This would also apply in the case of goods shipped in the name of the society and lost or damaged, and also to claims for insurance.

A registered society has a legal existence; it is capable of contracting, can sue and be sued, and can own property. No official acting under the instructions of the society and within the scope of its objects is personally responsible for any liability incurred, and the individual liability of the members is limited to the amount unpaid on their shares.

Agricultural societies engaging in business of any kind should therefore become incorporated bodies, and the simplest and least costly method of obtaining incorporation is to be registered under the Industrial and Provident Societies Act of 1893. Registration under this Act costs nothing, and the Act itself is so framed as to give the utmost latitude to a society in the conduct of its business. Agricultural societies desiring to place their business on a co-operative basis can obtain gratis a complete set of model rules and the necessary form of application, together with full instructions as to the steps to be taken, from the Secretary of the Agricultural Organization Society, Dacre House, Dacre Street, Westminster, S.W.


The average dimensions of
this group of holdings are
380 yards by 14 yards.

INDEX

ADEANE, MR. C., 168
AGRICULTURAL ORGANIZATION SOCIETY, 69, 167-171, 177, 184, 190, 277
AGRICULTURE, CHANGES IN, 1-7, 25-8, 43, 47, 48, 100, 104, 133, 134, 303, 311
AGRICULTURE CO-OPERATIVE FEDERATION, 168-171
ALLOTMENTS, 43, 50, 111, 265-278, 326
ANALYSES, 34-6, 166-7
ANDREWS, MR. HUGH, 62-63, 64, 67, 293
APPLES, 55, 58, 61, 63, 109, 189-191, 337
APRICOTS, 55
ARUM LILIES, 64
ASPARAGUS, 110, 118, 134, 138, 141, 298
ASSBEE, MR., 70, 77
AVRAMOVITCH, M., 319
AYLESTONE, ALLOTMENTS AT, 265-276

BACON, 209, 337
BALZAC, 233
BANKS, AGRICULTURAL CREDIT, 240, 319, 327-8
BEACH AND SONS, MESSRS. T. W., 64
BEAR, MR., 89
BERRY, MR. W. W., 48, 49
BLACKWELL, MR. T. F., 41
BLAIRGOWRIE, FRUIT-GROWING AT, 50-51
BOARD OF AGRICULTURE, 333
BOTTLED FRUIT, 143
BOTTLED MILK, 35
BRANDSBY AGRICULTURAL TRADING SOCIETY, 179-188
BRASSEY, HON. T. A., 168
BRIGSTOCKE, MR. A., 168
BROCCOLI, 116-122
BROWN, MR. EDWARD, 153-9
BRUSSELS SPROUTS, 106
BUDAPEST CO-OPERATIVE MARKETING SOCIETY, 154
BULB-GROWING: In Holland, 79-80; Scilly Isles and Cornwall, 80-81; Spalding and Wisbech, 81; views of a Lincolnshire grower, 81-2; bulbs in Ireland, 82-7
BULGARIA, EGG EXPORT FROM, 157
BULMER, MR. H. P., 190
BURDENS ON LAND, 38-9, 82, 96, 102, 333
BURTT, MR. PHILIP, 15
BURY, MR. O., 208
BUTTER, 3, 9, 304, 337
BUXTON, MR. N., 168

CABBAGES, 64, 109, 119, 122-4, 138
CANADA AND FRUIT-GRADING, 189-190
CANNING INDUSTRIES, 140-2
CARRINGTON, LORD, 279-287
CARROTS, 106, 107, 109
CATTLE, DAIRY, 3, 27, 304
CAULIFLOWERS, 106, 118
CELERY, 124-7
CENTRAL EXPERIMENTAL FARMS, 68, 315
CEREALS, 2-7, 25, 48, 71, 134, 241
CHANNEL ISLANDS, FRUIT, ETC., FROM, 97
CHEESE, 10, 22, 32, 220-1, 337
CHENEY, MR. E. J., 168
CHERRIES, 55, 58, 63
CHESHIRE MILK-PRODUCERS' ASSOCIATION, 21, 22-23
CHESTER AND WHITCHURCH DAIRY FARMERS' ASSOCIATION, 23
CHIVERS, MR., 42
CHRYSANTHEMUMS, 71, 77, 78, 96
CLYDE VALLEY, FRUIT-GROWING IN, 49-50
COMBINATION, AGRICULTURAL: Milk-supply, 18-24, 28-32; joint purchase, 36, 40, 69, 166-174, 301;

sale of produce, 51, 69, 189-194, 328-9; transport, 210-3, 225-6, France, 235; Holland, 239-240; Denmark, 242; Servia, 318-321; need for, 327
CONSIGNMENTS, WEIGHT OR CHARACTER OF, 45, 75-6, 107, 139, 208, 210
CORN-FLOWERS, 71
COTTAGES FOR LABOURERS, 65, 102, 180-2
COUNTY COUNCILS, 257-262, 335
CREAM, 3, 22
CUCUMBERS, 64, 78, 89, 90, 93, 118
CURRANTS, 55, 58, 63, 305

DAFFODILS, 71
DAHLIAS, 71
DAMSONS, 48, 63
DENNIS, MR. J. W., 208
DENNIS, MR. W., 112-3
DENMARK: Visit of Essex farmers, 36; bacon from, 209; land, 240-2
DEPARTMENTAL COMMITTEE ON RAILWAY RATES FOR AGRICULTURAL PRODUCE, 208, 209, 217, 218
DEPARTMENTAL COMMITTEE ON FRUIT INDUSTRY, 41-4, 48-52, 96, 218, 304-5
DIGGLE, MR. J. H., 283, 289
DORRIEN-SMITH, MR. T. A., 73
DRASKOVITCH, M., 317
DRUCE, MR., 251

EAST CHESHIRE AND NORTH DERBYSHIRE FARMERS' ASSOCIATION, 23
EASTERN COUNTIES DAIRY FARMERS' CO-OPERATIVE SOCIETY, 30-32
EASTERN COUNTIES FARMERS' CO-OPERATIVE ASSOCIATION, 171-7
ECCLESIASTICAL COMMISSIONERS, 277-8
EGGS, 3, 151-9, 317, 337
ESSEX: Prosperity in, 25; depression, 26; advent of Scotsmen, 26-29; Eastern Counties Dairy Farmers' Society, 29; Dairy Farmers' Co-operative Society, 30-32; Essex Education Committee, 32-6; results, 36-8; views of Mr. Alec Steel, 38-40; production under glass, 89; market-gardening, 109; cabbage crops, 124
EVESHAM: Early conditions, 133; market-gardening, 134-5; railway services, 135-6; local markets, 136; telephone, 137; consignments, 138-9; canning industries, 140-2; production under glass, 143; French vegetables, 144-150; small holdings, 294-301; 'Evesham custom,' 298; health resort, 306-7
EYRE, THE REV. G. F., 168

FACTORY LIFE, 266-7
FAIRFAX-CHOLMELEY, MR. H. C., 168, 178-188
FINDLAY, MR. A., 112
FITZHERBERT-BROCKHOLES, MR. W., 168
FLOWERS: Paper by Mr. Assbee, 70; expansion of industry, 71; forcing and retarding, 72; production in Scilly Isles, 73; Cornwall, 74; Lincolnshire, 74-6; other districts, 76-8, 89, 97, 119; value of imports, 337
FRANCE, LAND IN, 231-5
FRUIT: Report of Departmental Committee, 41-52, 96, 218, 304-5; area under fruit, 42; fruit-growing at Wisbech, 43-6; Cambridgeshire district, 46; Holt district, 47; Kent, 48; Clyde Valley, 49; Blairgowrie, 50-51; jam production, 52-4; foreign imports, 54-61; fruit-growing in Gloucestershire, 62-9; production under glass, 88-97; co-operative fruit-grading, 189-194; rail transport, 226-7; industry in experimental stage, 304-5; fruit-culture in Servia, 314-5; openings for cottagers, 328-9

GIBB, SIR GEORGE, 209
GILLIES, MR. JOHN, 106, 107, 123
GILMOUR, SIR JOHN, 168
GLASS, PRODUCTION UNDER, 64, 82, 88-97, 143-4
GOOSEBERRIES, 49, 58, 63
GRADING, 57, 189-194
GRAIN, CARRIAGE OF, 209
GRAPES, 55, 89, 90, 93, 97
GREENGAGES, 63

HARPER, MR. JAMES, 55
HARRIS, MR. J. NUGENT, 168
HARTMANN AND CONEN, MESSRS., 154
HEATHFIELD, POULTRY INDUSTRY AT, 159-163, 211-3
HENNELL, MR. J. E., 218
HEREFORD CO-OPERATIVE FRUIT-GRADING SOCIETY, 190-4
HEREFORDSHIRE, FRUIT-GROWING IN, 42, 189-193
HILL, MR. VINCENT W., 48, 208

HODGE, MR. J. M., 50, 51
HOLLAND: Visit of Essex farmers to, 36; bulb-growing in, 79-81; market-gardeners' combination, 109-201; land, 235-240
HOUSING, 65, 102, 180-2, 294-7, 299
HUNGARY, Essex farmers' visit to, 36; egg and poultry industry, 154-7

IDIENS, MR. JOHN, 135, 146, 149, 218
IMPORTS: Fruit, etc., 54-5, 56-61, 103, 105; lettuces, 144; eggs, 151, 153; poultry, 153; bacon, 209; butter, 209; general, 337
INTERNATIONAL CO-OPERATIVE ALLIANCE, 328
IRELAND: Bulb-growing, 82-7; potatoes, 115-6; chickens from, 160-1

JAM-MAKING, 41-2, 51, 52-4, 137
JEFFS, MR., 273-5
JERMYN, MR., 287
JOHANNSEN, DR., 72

LABOUR, 48, 64-5, 102, 179
LABOURERS, 39, 43, 134-135, 179, 302-3, 328-9
LAFARGUE, M., 233
LAITY, MR. WILLIAM, 117
LAND: Utilization of, 6, 7; burdens on, 38-40; conditions in France, 231-5; Holland, 235-240; Denmark, 240-2; England, 246-7; 'Evesham custom,' 298; proposed compulsory purchase, 336; attitude of land-owners, 336
LANDLORDS, 20, 25, 38, 253, 328-9
LAUE, FUNCK AND CO., 157
LAVERGNE, M. DE, 233, 253
LAW, MR. FRANK, 77
LAWRENCE, SIR TREVOR, 54
LAWREY, MR. ANDREW, 118
LECOUTEUX, M., 234
LEEKS, 106
LETTUCES, 106, 138, 144-150
LICHFIELD, THE EARL OF, 20
LILACS, 72
LILIES, 64, 72
LILIES OF THE VALLEY, 71
LONG, COLONEL C. W., 168
LUKITCHEVITCH, M., 318

MACHINERY, COMBINED PURCHASE OF, 174, 320, 321
MCCONNELL, MR. PRIMROSE, 37
MALBY, MR. ALFRED, 217
MARKET-GARDENING, 98-110, 133-150, 199-204, 304
MARKETING OF PRODUCE, 18-24, 28-31, 56-7, 136-7, 195-206, 324-5, 329
MARTIN, MR., 65
MEAT, 3
MICHELET, 233
MIDDLEMEN, 17, 28-30, 195-206
MILK, 3, 8-24, 27-31, 214-8, 304
MOTORS AND AGRICULTURE, 100-1, 185-8

NATIONAL POULTRY ORGANIZATION SOCIETY, 153
NEWCASTLE-ON-TYNE CO-OPERATIVE SOCIETY, 16
NEWCASTLE-ON-TYNE FRUIT AND POTATO MERCHANTS' ASSOCIATION, 56, 225
NEWFOUNDPOOL CO-OPERATIVE ALLOTMENTS SOCIETY, 277
NEWPORT AND DISTRICT AGRICULTURAL CO-OPERATIVE TRADING SOCIETY, 193-4
NORFOLK SMALL HOLDINGS ASSOCIATION, 287-9
NUTS, 64

ONIONS, 58, 105, 109, 138, 337
ORLEBAR, MR. ROUSE, 168
OWNER'S RISK, 224-5

PARIS, LETTUCE-GROWING AROUND, 144-5
PARSLEY, 107
PARSNIPS, 106, 109
PEACHES, 55, 64, 90
PEARS, 55, 58, 337
PEAS, 109, 127-9, 337
PEASANT PROPRIETARY: In France, 231-5; in Holland, 235-240; in Denmark, 240-2; in England, 243-254, 332-3
PEONIES, 71, 77
PIGS: Co-operative insurance, 168; co-operative sale, 176-7; consignments to Hungary, 305; pig-breeding in Servia, 316
PLUMS: 55, 58, 63, 65, 139, 337
POTATOES, 43, 58, 64, 108, 109, 111-6, 118-9, 208, 337
POULTRY, 3, 63, 153-164, 211-3, 316-7, 337
PRESS, MR., 191
PROVIDENT ALLOTMENTS CLUBS, 280
PRUNES FROM SERVIA, 314

RABBITS, 201
RAILWAYS AND TRADERS, 49, 66, 104, 113, 128, 135-6, 185-6, 193, 207-228

RAILWAY RATES, 13, 96, 149, 157, 161, 218-9, 220-1, 223-5
RAILWAYS TRAFFIC ON: Milk, 11-17, 214-8; fruit, 44-9; flowers, 73-8; bulbs, 81; hot-house produce, 89-96, market-garden produce, 104-110, 138-9; potatoes, 113-5, 208; broccoli, 116, 120-1; cabbages, 123-4; celery, 125-6; green peas, 127-9; rhubarb, 130; eggs from Hungary, 157; from Bulgaria, 157; poultry, 159-161, 211-3; grain, 209
RASPBERRIES, 44, 49, 50
READ, MR. J., 190
RHUBARB, 64, 130-2
RIJN, DR. J. J. L. VAN, 79
RILEY, MR. JOHN, 190
ROBBINS, MR.: 103
ROBERTSON, MR. JAMES, 83
ROLLESTON, SIR J., 270
ROSES, 64, 71
RUSSELL, MR. THOMAS, 218

SAMS, MR. W., 92, 96
SCIENTIFIC FARMING, 34, 40, 303-5
SCILLY ISLES, FLOWER-GROWING IN, 73
SCOTLAND: Scottish settlers in Essex, 26-40; agricultural conditions in, 39-40; fruit-growing, 42, 49-51; Scottish Agricultural Organization Society, 168
SEA-KALE, 118
SERVIA, AGRICULTURAL CONDITIONS IN, 313-322
SMALL HOLDERS, 7, 43, 47-8, 51, 67-8, 92, 132, 134, 229-301, 313, 326-7
SMALL HOLDINGS ACT (1892), 257-9, 260
SMITHELLS, MR. EDWIN, 20
SOUTH LINCOLNSHIRE SMALL HOLDINGS ASSOCIATION, 281-7
STAFFORDSHIRE FARMERS' ASSOCIATION, 18-22, 217
STAMER, MR. W. E., 193
STEEL, MR. ALEC, 38-40, 333
STOCK-BREEDING, 3, 286, 303, 305, 316
STRATFORD CO-OPERATIVE SOCIETY, 30
STRAWBERRIES, 44, 46-49, 55, 58, 63, 93, 138, 139
STRICKLAND, MR. J. MASKILL, 179
STUBBS, DEAN, 302
SUDELEY, LORD, 62
SUTHERLAND, THE DUKE OF, 193

TAXATION, LOCAL, 39, 82, 96, 102, 333
TELEPHONE, THE, 133, 137
TEMPLE, MR. WILLIAM, 50
TENANCY, 255-264, 270, 289-292
TITHES, 38-40
TODDINGTON ESTATE, GLOUCESTERSHIRE, 62-9
TOMATOES, 50, 58, 61, 64, 78, 89, 90, 93, 97, 337
TURNIPS, 109

UCKFIELD, POULTRY INDUSTRY AT, 159-163, 213
UNEMPLOYED, THE, 142, 302, 330-1
UNITED STATES, CANNING INDUSTRY IN, 141-2

VEGETABLE MARROWS, 105, 106
VIOLETS, 71

WALLACE, MR. M. G., 115
WEBB, MR. RAYMOND, 295-7
WELCHMAN, MR. WILLIAM, 44
WENLOCK, LORD, 168
WENSLEYDALE PURE MILK SOCIETY, 15
WHEAT, 2, 43, 134, 241, 337
WILD AND ROBBINS, MESSRS., 103
WILEY, MR. SAMUEL, 179
WILSON, MR. F. W., 287
WINCHCOMBE CO-OPERATIVE AUCTION MART, 69
WINCHCOMBE, ETC., AGRICULTURAL CO-OPERATIVE ASSOCIATION, 69
WINCHESTER, ALLOTMENTS AT, 277
WINFREY, MR. R., 282, 283, 287, 291
WISBECH, FRUIT-GROWING IN, 43-6
WOKING AND MAYBURY ALLOTMENTS SOCIETY, 277
WOLFF, MR. H. W., 168, 328
WORCESTER, PRODUCTION OF FRUIT AND VEGETABLES, 140
WORKING MEN'S CLUB AND INSTITUTE UNION, 182
WORTHING, GLASS-HOUSES AT, 90-6

YERBURGH, MR. R. A., 168
YOUNG, ARTHUR, 133

BILLING AND SONS, LTD., PRINTERS, GUILDFORD

WORKS BY EDWIN A. PRATT.

PUBLISHED BY JOHN MURRAY.

THE ORGANIZATION OF AGRICULTURE.

Cheaper and Enlarged Edition. Paper Covers. 1s. net.

CONTENTS.

INTRODUCTION—THE RAILWAYS AND AGRICULTURE—A DISSERTATION ON EGGS — AGRICULTURAL ORGANIZATION IN DENMARK — GERMANY — FRANCE — BELGIUM — ITALY — HOLLAND — HUNGARY — AUSTRIA—SWITZERLAND—SWEDEN AND NORWAY—FINLAND—SIBERIA —SERVIA — POLAND — LUXEMBURG — THE UNITED STATES — ARGENTINA—CANADA—AUSTRALASIA—IRELAND—ENGLAND AND WALES— A GERMAN VIEW OF ENGLISH AGRICULTURE—DO THE RAILWAYS HELP THE FARMERS? — CONCLUSION AND RECOMMENDATIONS — APPENDIX (BRITISH EGG INDUSTRY; ECONOMIC REVIVAL OF THE SCILLY ISLES; AGRICULTURAL DEVELOPMENT OF FENLAND; CANADA'S AGRICULTURAL PROGRESS; AGRICULTURAL ORGANIZATION IN JAPAN) —INDEX.

LETTER RECEIVED BY THE AUTHOR.

'No. 10, SHIBA PARK, SHIBA, TOKYO,
'*February* 10, 1905.

'DEAR SIR,

'I beg to inform you that I am intending to translate your excellent work, named "The Organization of Agriculture," into Japanese, and to introduce it to our reading public. Can you grant me the honour, with the right of translation of the above book, without in any way entrenching your own right and publisher's? If you can, I believe I may rely on your readiness to do so.

'Requesting again your permission, with your generosity,

'Yours truly,
'K. SATO,
'*Secretary, Central Association of Japanese Agriculturists.*'

EXTRACT FROM A PAMPHLET OF ELEVEN PAGES (BULLETIN VIII.) ISSUED BY THE DEPARTMENT OF AGRICULTURE, NATAL, UNDER THE HEADING 'AGRICULTURAL CO-OPERATION.'

'This article has been prepared with a view of answering the question, What is the best form of Agricultural co-operation for Natal? In order to arrive at an answer to this question, it is, first of all, necessary to ascertain what has been done in other countries, so that the errors into which the pioneers of the movement fell may not be repeated in this Colony, and that we may profit by the accumulated experience now available.

'Fortunately, very full information upon this subject of Agricultural Co-operation — or, as it is sometimes called, "The New Agriculture"—is now to be had. Practically the whole of this article is based upon information gleaned from the various publications of the Department of Agriculture and Technical Instruction for Ireland, as well as from the invaluable work of Mr. E. A. Pratt on "The Organization of Agriculture." This latter work relates in clear and popular language the history of Agricultural Co-operation in every part of the world, and no society or group of individuals contemplating co-operative action can do better than purchase a copy of the work in question.'

RAILWAYS AND THEIR RATES.

WITH AN APPENDIX ON THE BRITISH CANAL PROBLEM.

Cheap Edition. Paper Covers. 1s. net.

Financial News.—'The great array of facts is marshalled with accuracy and skill.'

Financier and Bullionist.—'The ablest vindication we have seen of the much-abused railway companies.'

Standard.—'Will repay perusal by all who take interest in one of the country's greatest industries.'

County Gentleman.—'Ought to receive the attention of all who have the welfare of the rural districts at heart.'

Scotsman.—'A valuable book for railwaymen, traders, and others who are interested, either theoretically or practically, in the larger aspect of the economic problem of how goods are best brought to market.'

Glasgow Herald.—'In effect this is a statement of the case for the defence against the attacks of traders and their sympathizers. We are bound to say that the case is here presented with admirable lucidity, force and reason.'

Birmingham Daily Post.—'A most valuable contribution to a complex and thorny question. Every business man who thinks that the class to which he belongs has a grievance against the British railway companies ought to read it.'

Iron and Coal Trades Review.—'The author is to be congratulated on the production of a well-written and able volume.'

Engineering Times.—'A book full of interesting information.'

Railroad Gazette.—'Not the least interesting part of Mr. Pratt's work is the series of sketches of the history of railroad progress in various Continental States.'

T.P.'s Weekly.—'The author has brought together and put into readable form a vast amount of information not easily accessible.'

Eastern Morning News.—'The reading of the work goes to show that there are two sides to every question.'

LONDON:

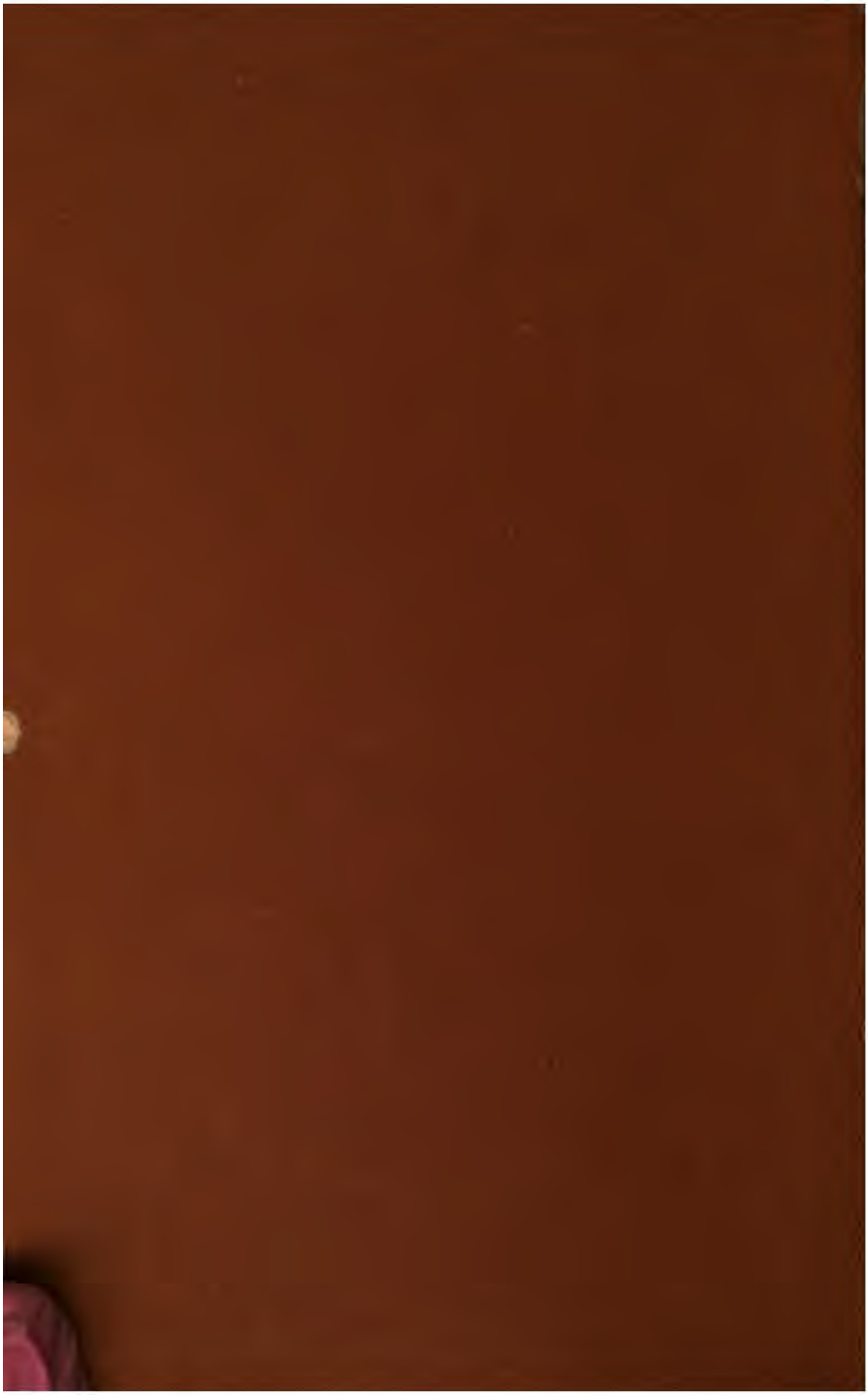
JOHN MURRAY, ALBEMARLE STREET, W.

630.942
P91t
UNIV. OF MICH.
APR 20 1910

THE TRANSITION IN AGRICULTURE

BY EDWIN A. PRATT

AUTHOR OF
'RAILWAYS AND THEIR RATES,' 'THE ORGANIZATION OF AGRICULTURE,'
'TRADE-UNIONISM AND BRITISH INDUSTRY,'
'AMERICAN RAILWAYS,' ETC.

LONDON
JOHN MURRAY, ALBEMARLE STREET, W.
1909

Price One Shilling.